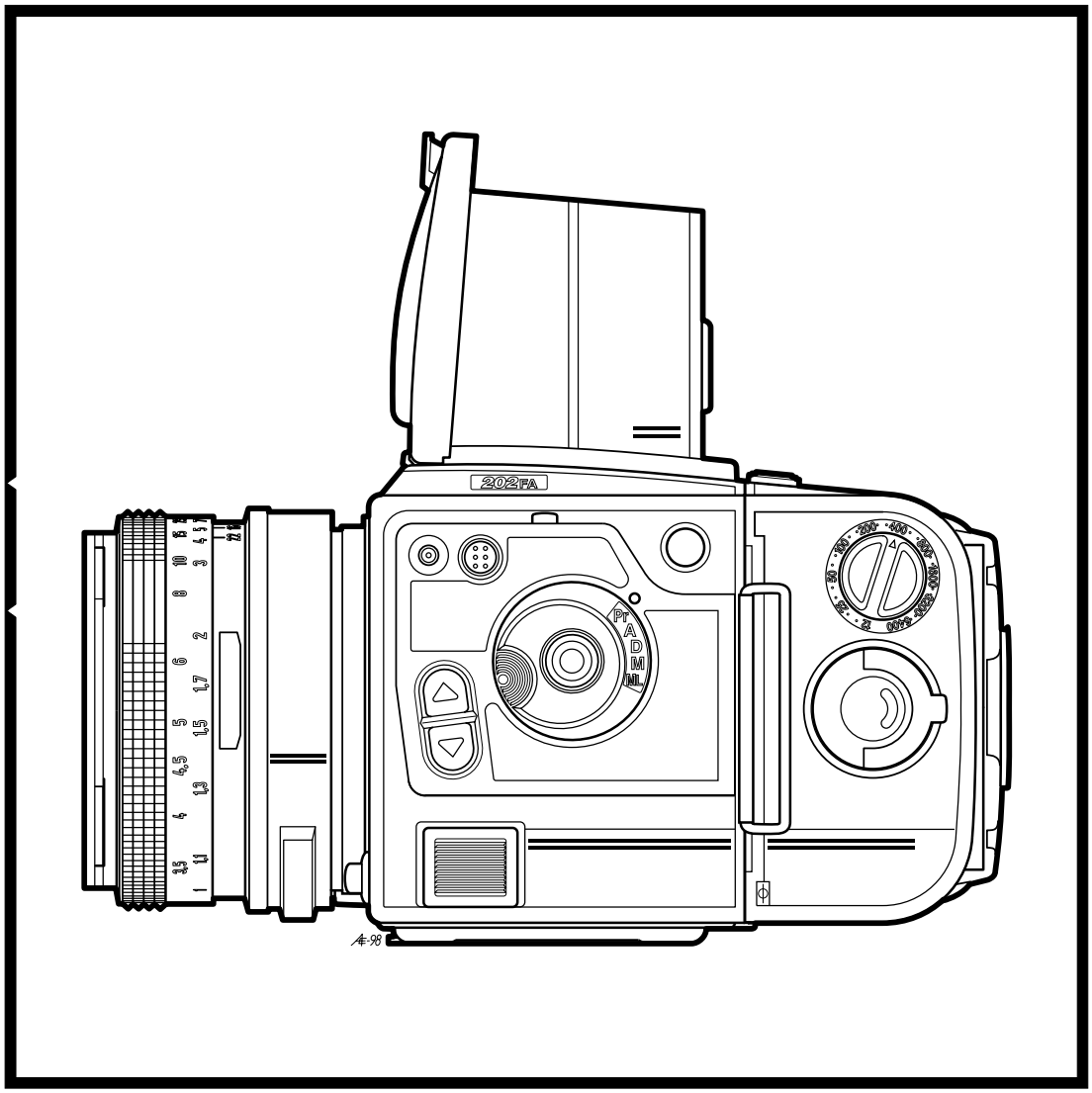
HASSELBLAD

Service Manual

202FA 201F



April 1998

Victor Hasselblad AB

Göteborg Sweden

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202FA - 201F

03/94	New Service Manual - 201F
07/94	Spare part No. for the speed ring - 201F
03/95	New tool - Support 904020
05/95	New tripod foot - 201F
07/95	Spare part No. for the curtain set - 201F
11/95	Redesigned electronic circuit - 201F
14/95	Mirror and focusing screen adjustment - 200 series cameras
18/95	Revised documentation - 201F
24/95	Incorrect spare part number - 201F
28/95	New tool - Adapter 904759
03/96	Driving arm failed to latch - 201F
12/96	Tripod foot adapter/kits
04/97	Light seal foil modified - 200 series cameras
09/98	Introduction of the Hasselblad 202FA
13/99	Modified parts - 200 series cameras
01/00	New CD-ROM - Version 1.2
14/00	Discontinued parts - 200 series cameras
01/01	Modified magazine hook - 202FA
04/01	New CD-ROM - Version 2.0

Camera body 202FA

Design:	Medium format single reflex camera with built-in TTL selective meter electronically connected to FE lenses and E magazines. Interchangeable lenses, film magazines, viewfinders and focusing screens.
Shutter:	Electronically controlled mechanical focal plane shutter with release solenoid system. Horizontally running textile curtains. Shutter speed range 90 s - 1/1000 s and B. In manual mode up to 34 minutes. Flash synchronization up to 1/90 s.
Lens mount:	Hasselblad bayonet mount for FE, F, CF and CFE lenses. Contacts for data-bus communication with the FE lenses.
Viewfinder:	Focusing hood with 4 x magnifier, interchangeable with magnifying hood and prism viewfinders with or without exposure meter. Acute-Matte D focusing screen interchangeable with other Hasselblad focusing screens.
Display:	LCD display with all relevant exposure and operational data. Switch-controlled low light illumination.
Winding & film advance:	Manual single turn winding crank. Simultaneous shutter cocking and film advance. The crank is interchangeable with the Hasselblad Winder F for a frame rate of up to 1.3 fps.
Exposure meter:	TTL metering at full aperture with FE lenses. High sensitivity silicon photocell. Selective meter area approximately 20% of the image area. Metering range EV 0.5 to EV 21.5 at ISO 100/21° and f 2.8. Exposure adjustment ± 5 stops in 1/3-stop increments.

Camera body 202FA

Operating modes:	Aperture priority automatic exposure using A or D-mode. Manual exposure using M or ML-mode. Programming using PR-mode. Electronic shutter speed lock.
Film speed range:	ISO 12/12° - 6400/39°, selected with film speed dial on E and CC magazines or set in programming mode.
Flash control:	Center weighted TTL/OTF flash exposure meter. Full dedicated flash control with inhibited flash triggering at shutter speeds faster than 1/90 s. Flash control film speed range ISO 25 - 1000.
Self timer:	Default delay 10 s. Programmable delay in 12 steps from 2 s to 60 s.
Battery:	6 volt, type PX28 Lithium.
Tripod mount:	Quick coupling plate with 1/4" and 3/8" socket thread.
External dimensions: (Camera body)	Width 117, height 110 and lenght 91 mm.
Weight:	750 g.

Camera body 201F

Design:	Medium format single reflex camera with built-in flash exposure control. Full image size mirror. Film size 6 x 6 cm (2 1/4 x 2 1/4 inch). Interchangeable lenses, film magazines, viewfinders and focusing screens.
Shutter:	Electronically controlled mechanical focal plane shutter with release solenoid system. Horizontally running textile curtains. Shutter speed range 1s - 1/1000s and B. Fully mechanical C setting for lenses with built-in leaf shutters. Flash synchronization at all speeds from B to 1/90 s.
Lens mount:	Hasselblad bayonet for FE, F, CF and C lenses.
Viewfinder:	Focusing hood with 4.5 x magnifier, interchangeable with magnifying hood and prism viewfinders with or without exposure meter. Acute-Matte focusing screen interchangeable with other Hasselblad focusing screens. Illuminated flash indicator and battery check.
Winding & film advance:	Manual single turn winding crank. Simultaneous shutter cocking and film advance. The crank is interchangeable with the Hasselblad Winder F for a frame rate of up to 1.3 fps.
Flash control:	Center weighted TTL/OTF flash exposure meter. Full dedicated flash control with inhibited flash triggering at shutter speeds faster than 1/90 s. Flash control film speed range ISO 16 - 1000.
Self timer:	Default delay 10 s, optional delay 2 s selected with selftimer button. Flashing selftimer indication light.
Battery:	6 volt, type PX28 Lithium.
Tripod mount:	Quick coupling plate with 1/4" and 3/8" socket thread.
External dimensions: (Camera body)	Width 117, height 110 and lenght 91 mm.
Weight:	750 g.

Camera body 202FA

Focal length:		71.4 mm ± 0.03 mm
Front key angle:	Cocked position	8° - 9° 3 Ncm
	Overtravel	12° - 14° 14 Ncm
Front gear:	Pre-tension of spring	3 turns (released position)
Magnets:	Minimum hold	2 Ncm
Shutter:	Accelerating stretch	6.5 - 8.1 mm
	Slot	0.2 - 1.0 mm
	Travel times	9.6 - 9.9 ms at 1/1000 s (0 ± 0.11 ms)
	Speeds 1 sec - 1/60	± 0.1 EV
	Speeds 1/90 - 1/1000	± 0.3 EV
Light meter:	All settings	± 0.3 EV
Flash meter:	All settings	± 0.3 EV
Flash sync:	Delay	0 - 0.20 ms
Current consumption:	On	max 10 mA at 5.6 V
	Off	max 20 uA at 5.6 V

Camera body 202FA

PPS = Pressure point switch

Makes when the release button is pressed to the pressure point. Activates the camera. A pre-locked light value is unlocked when the button is released.

LRS = Late release switch

Makes when the release button is fully pressed. Starts together with PPS an exposure.

HPS = Home position switch

Makes when the camera is fully cocked. Indicates together with FSS that the camera is tensioned. If HPS is open, the camera can not be activated.

FSS = First curtain sync switch

Will be switched off when the first curtain is released. Indicates together with HPS that the camera is tensioned. If FSS is open, the camera can not be activated.

SSS = Second curtain sync switch

Will be switched off when the second curtain is released. Must be closed when the camera is tensioned otherwise the exposure will fail.

FKS = Front key switch

Makes when the camera is tensioned. Is switched off when the mirror goes up and at that time also prevents new light values to be stored. If FKS is not switched off the selftimer does not work.

MRS = Mirror release switch

Makes when the mirror release button is fully pressed. When the button is pressed once more, the selftimer starts. In B-mode the second curtain will be released when MRS is switched off.

ELS = Exposure lock switch

Activates the camera when pressed. When released, a light value is stored.

Camera body 202FA

AS+ = Adjustment switch +

Exposure compensation, manual shutter speed setting etc.

AS- = Adjustment switch -

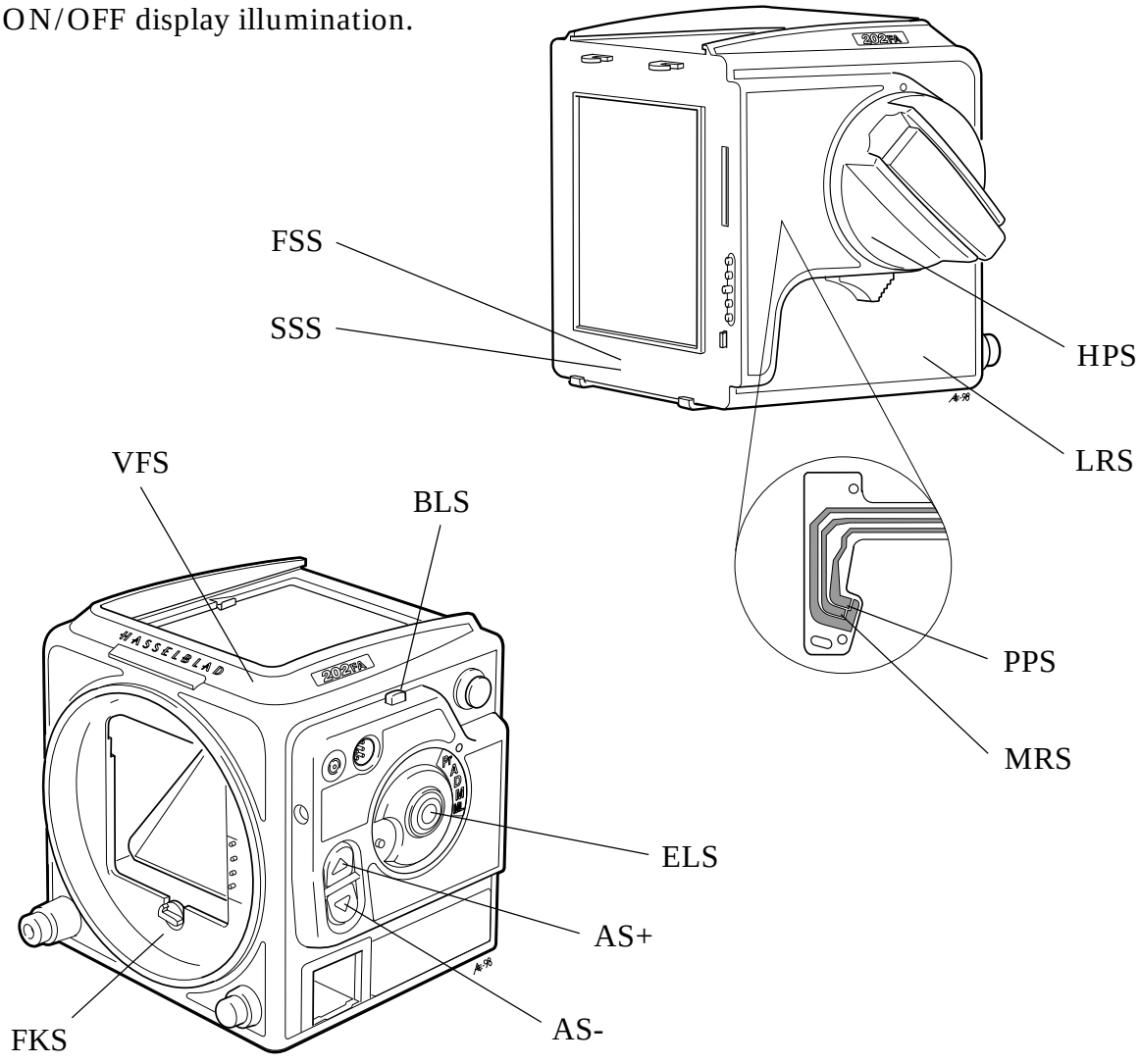
Exposure compensation manual shutter speed setting etc.

VFS = View finder switch

Is switched off when a prism finder is mounted on to the camera and at the same time mirror turns the display.

BLS = Back light switch

ON/OFF display illumination.



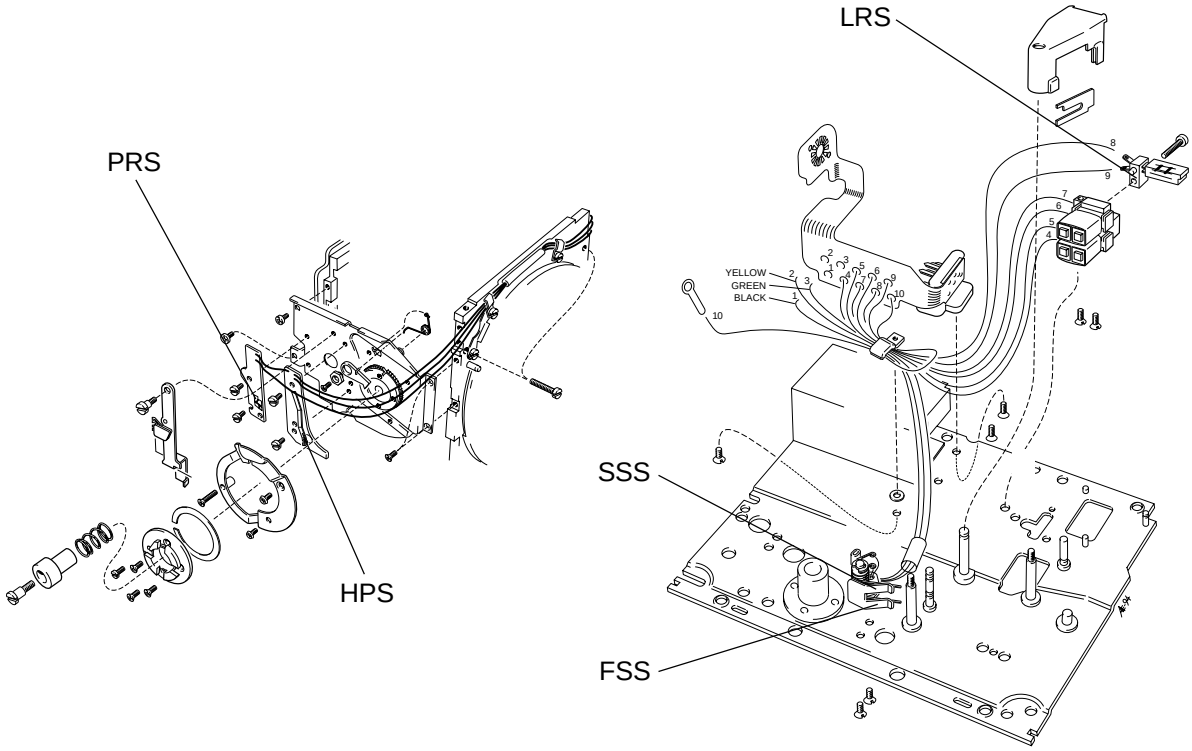
Camera body 201F

Focal length:		71.4 mm ± 0.03 mm
Front key angle	Cocked position	8° - 9° 3 Ncm
	Overtravel	12° - 14° 14 Ncm
Front gear:	Pre-tension of spring	2.5 turns (released position)
Magnets:	Minimum hold	2 Ncm
Shutter:	Accelerating stretch	6.5 - 8.1 mm
	Slot	0.2 - 1.0 mm
	Travel times	9.6 - 9.9 ms at 1/1000 s (0 ± 0.11 ms)
	Speeds 1 sec - 1/60	± 0.1 EV
	Speeds 1/90 - 1/1000	± 0.3 EV
Flash meter:	All settings	± 0.3 EV
Flash sync:	Delay	0 - 0.20 ms
Current consumption:	On	max 10 mA at 5.6 V
	Off	max 20 uA at 5.6 V (drain)

Camera body 201F

(up to camera serial No. 16EI10639)

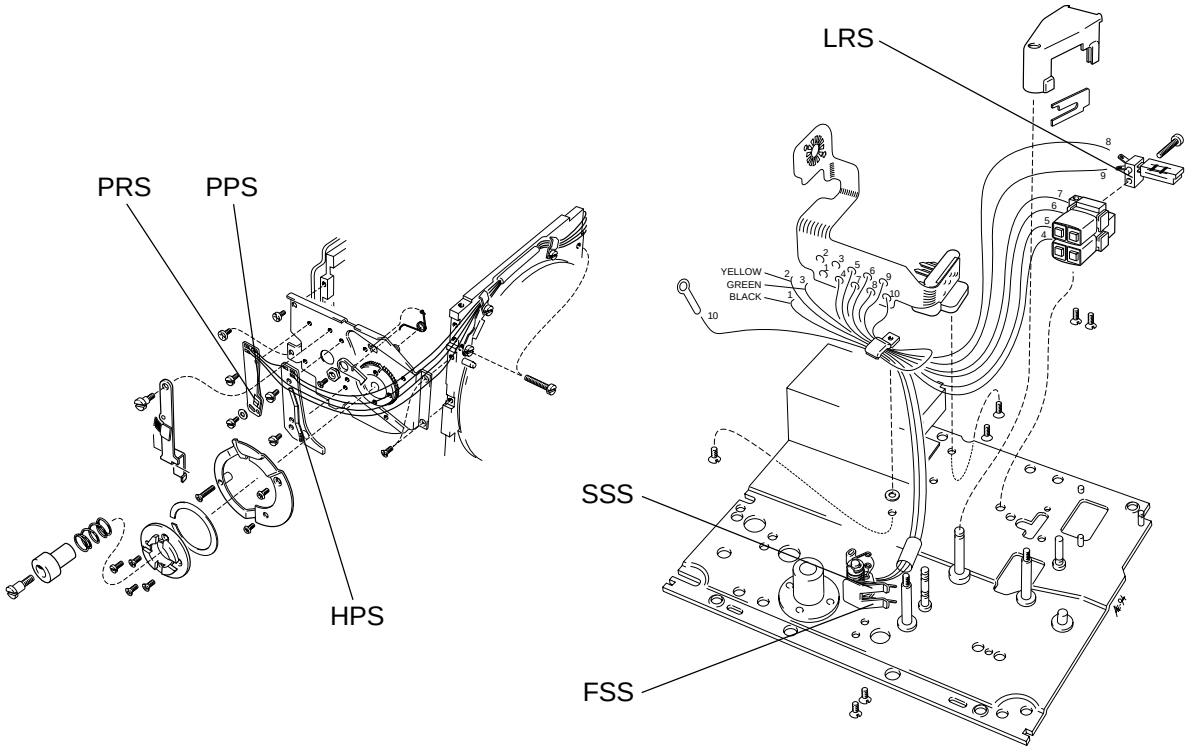
LRS = Late release switch	Makes when the release button is fully pressed. Starts together with PRS an exposure.
PRS = Pre-release switch	Makes when the mirror release button is pressed. When the mirror release button is pressed once more, the selftimer starts. In B-mode the second curtain will be released when PRS is switched off.
HPS = Home position switch	Makes when the camera is fully cocked. Indicates together with FSS that the camera is cocked. If HPS is open, the camera can not be released.
FSS = First curtain sync switch	Will be switched off when the first curtain is released. Indicates together with HPS that the camera is cocked. If FSS is open, the camera can not be released.
SSS = Second curtain sync switch	Will be switched off when the second curtain is released.



Camera body 201F

(from camera serial No. 16EI10640)

PPS = Pressure point switch	Makes when the release button is pressed to the pressure point. Activates the camera. In B-mode the second curtain will be released when PPS is switched off.
LRS = Late release switch	Makes when the release button is fully pressed. Starts together with PRS an exposure.
PRS = Pre-release switch	Makes when the mirror release button is pressed. When the mirror release button is pressed once more, the selftimer starts. In B-mode the second curtain will be released when PRS is switched off
HPS = Home position switch	Makes when the camera is fully cocked. Indicates together with FSS that the camera is cocked. If HPS is open, the camera can not be released.
FSS = First curtain sync switch	Will be switched off when the first curtain is released. Indicates together with HPS that the camera is cocked. If FSS is open, the camera can not be released.
SSS = Second curtain sync switch	Will be switched off when the second curtain is released.



Camera body 202FA

Link to : VHABSTS

CAUTION! When handling the circuit boards a grounded bench mat and a wrist strap must be used to prevent ESD damage.

Carry out the following checks/adjustments when a camera body is reassembled after a repair.
Note! Point 1 - 7 without camera shell.

1. The camera body focal length is checked by using the gauge V-2229 together with the ruler and indicator clock. The focal length is 71.40 mm ± 0.03 mm. Adjustment slots on the chassis and the bottom mechanism plate.

2.* Secure the camera in the gauge V-2229 by the adapter 904759. Check the 45º mirror angle with the sighting tube. The image seen, should be symmetrical. Adjust, if necessary, the four supports in the mirror box by using the tools 901046 (front supports) and 904018 (rear supports).

3.* Check the flatness of the screen. Use the screen adapter V-4705 and the ruler with the indicator clock. The same measurement should be obtained at all four corners. Adjust, if necessary, by the four screws (Pos No. 26, page 14:1).

4.* After the screen is correctly levelled the height must also be checked. Use the collimator V-4151, the screen adapter V-4705 and the microscope V-2236.
The image seen in the microscope should be the red line central between the two green lines. Recheck the flatness.

5. Use the tool 902658 or V-2075/2151 for checking of the front key angle. Adjust if necessary. Cocked position 8° - 9° 3 Ncm. Overtravel 12° - 14° 14 Ncm.

6. Temporarily fit the control panel to the camera body and secure it with a piece of tape. Use the nut driver 903755 or 903474.

7. Connect the camera body to the Service Test System and go through all checks in the given order according to the 202 menu. Note! Pos. 7:1 to 7:6 can be checked without sensor head and light source.

7:1 CAMERA STATUS: Make sure all switches are working properly.

Note! If the contact flex has been removed at any time, the timing between the pre-release switch (PRS) and the mirror must be checked.
Mount the test shell, 905002, with four screws. Fit the exposure gauge V-2354 in the release button and slowly rotate the micrometer clockwise and observe when the mirror is released.

Camera body 202FA

At the same time (not before) the PRS should change from "open" to "closed" on the screen. A slight delay is acceptable. This corresponds to 1.5 divisions on the scale. Adjust, if necessary, by altering the position of the rear section of the contact flex containing the PRS.
Untighten the two screws (Pos. No. 12, page 9:1) and carefully change the position of the flex in the direction required. Tighten the screws and recheck.

7:2 PANEL: Check the control panel functions.

7:3 DISPLAY: Check the display indications.
Note! The sync cable must be connected to the TTL connector.

7:4 CURRENT: Check the consumption (max. 10 mA at 5.6 volt) and the drain (max. 20 uA at 5.6 volt).

7:5 LENS: Check the communication between a lens and the camera body. (F-stops)

7:6 MAGAZINE: Check the communication between a magazine and the camera body.

7:7 SHUTTER: Start by adjusting the travel times. Use 1/1000 sec. and adjust the spring housing until both curtains have a speed between 9.6 - 9.9 ms. (0 ± 0.11 ms).
At this point, also make a final adjustment of the braking mechanism if necessary. The brake is checked as follows: Release the camera. Rotate the 2nd shutter gear (Pos No. 18, page 16:1) and count the number of times the catch (Pos No. 4, page 17) and the brake plate (Pos No. 3, page 17) engage. (Min. 4 times). For an adjustment use the nut driver 903755 or 903474. (See page 3:4).

Check/adjust the speed 1/1000 sec. Use the "shutter speed" potentiometer for an adjustment. (See page 3:4). Max. deviation ± 0.3 EV.

7:8 LIGHT METER: Check/adjust the light meter. Use the "light meter" potentiometer for an adjustment. (See page 3:4). Max deviation ± 0.3 EV. Do not use any other light output except EV 15, since the camera is not mounted in the shell.

7:9 FLASH SYNC: Check/adjust the flash sync. The delay is adjusted to 0 - 0.20 ms by altering the position of the first sync contact. (See page 3:4).

7:10 FLASH METERING: Check/adjust the flash meter. Use the "flash meter" potentiometer for an adjustment. (See page 3:4). Max. deviation ± 0.3 EV. Use ISO setting 100 and light output EV 15.

8. Remove the control panel. Make sure the four centering screws (Pos. No. 7 and 10, page 10:1) are screwed in and put the camera body in to the shell.
Do not forget the pre-release button.

Camera body 202FA

9. After aligning the rear plate/shell tighten the two rear screws (Pos No. 32, page 5:1) and adjust, if necessary, the horizontal relationship between the front ring and the shell by the screws (Pos No. 7, page 10:1) which are accessible through the shell.

10. Adjust the vertical relationship between the front ring and the shell by the screws (Pos No. 10, page 10:1) which are accessible through the shell and then tighten the two front screws (Pos No. 34, page 5:1).

11. Check the upper edge alignment of rear plate and shell. Adjust, if necessary, by the two screws (Pos No. 1, page 8:1) which are accessible through the shell .
Note! The rear edge of the shell must not protrude over the rear plate at any point.

12. Remount the control panel, the winding crank mechanism, the tripod foot and the inner cover. (The inner cover by using the tool 901061).

13.* When the camera body is fully reassembled, recheck the focal length, the 45° mirror angle and the screen position.

14. Connect the camera body to the Service Test System once again and go through all checks once more. Minor adjustments are sometimes necessary to make.
At this stage, it is also possible to use different light outputs when checking the light and flash meter since the camera body is mounted in to the shell.

* The 200 series cameras are built slightly different from the 500 series cameras concerning the focusing screen adjustment. Due to the use of high precision test equipment at the assembly line, deviations from perfect 45º mirror angle is compensated for when adjusting the focusing screen position. Doing so we assure minimum focusing differences over the full image format between the images on the focusing screen and on the film.

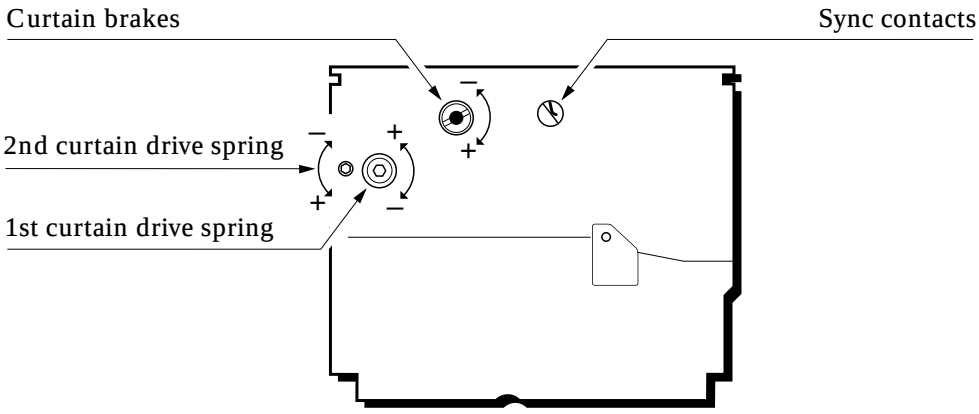
The result of the factory screen adjustment is, that the screen position may not be totally horizontal when tested in the gauge V-2229. This is still quite in order.

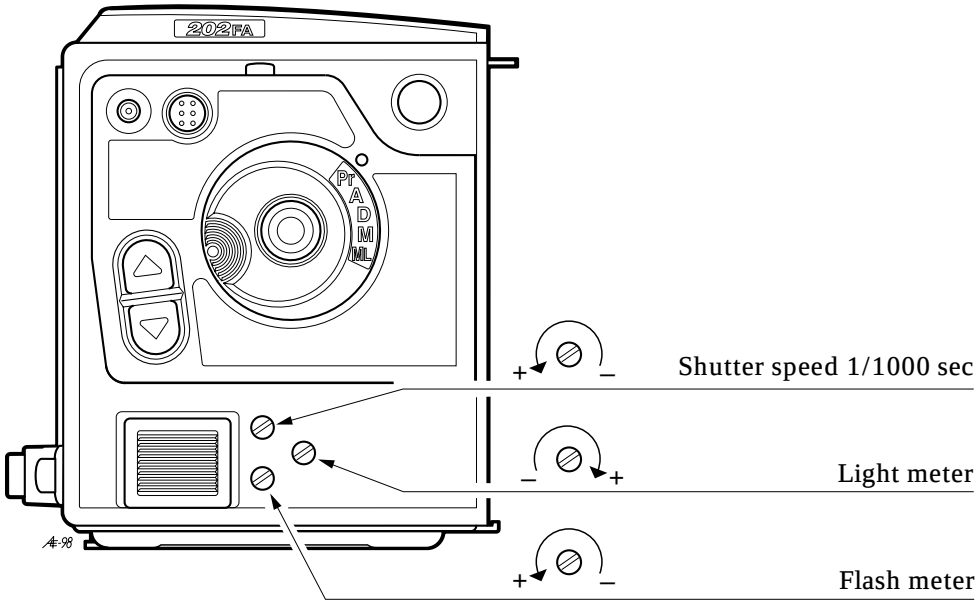
When servicing the 200 series cameras we recommend not to change the mirror angle, provided it is in tolerance when checked with the sighting tube in gauge V-2229. Deviations from perfect 45º angle has already been accompanied by non-horizontal focusing screen position.

However, if the mirror angle is out of tolerance, adjustment has to be made using the current procedures.

(Service Info No. 14/1995)

Camera body 202FA

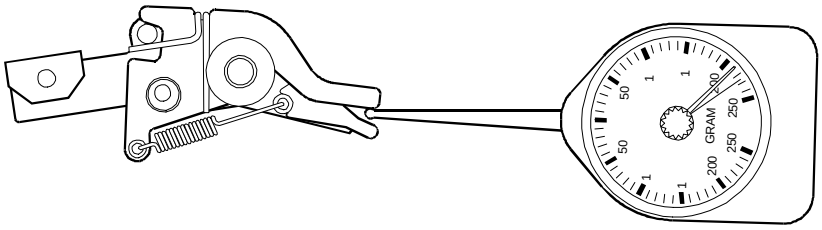




Camera body 202FA

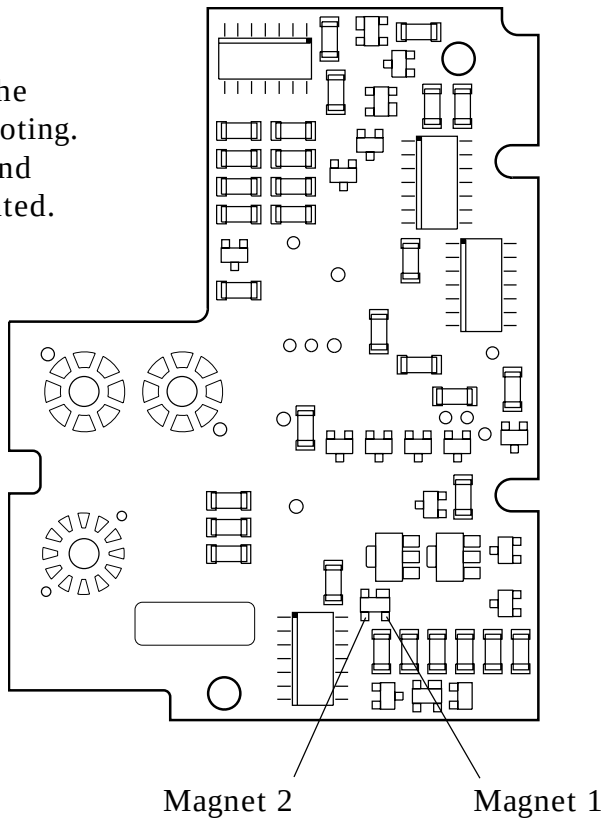
Magnet hold capability

The magnet hold capability can be checked according to the diagram below. A suitable scale, like the ZZ88, should be used. When measuring, it must indicate minimum 2 NCM (200 gram) before each latching lever is released.
If indicating less then 2 NCM, the magnets should be cleaned and then rechecked. If still less then 2 NCM after cleaning the Bottom mechanism plate, compl. (Part No. 111028) must be changed. Magnets and latching levers are not available as spare parts due to sensitive calibration procedures.



VHAB Tool No. = ZZ88, Scale

The magnets can be released from the main circuit board when troubleshooting. Use an external DC power supply and apply 5 volt to the test points indicated. Do not forget the grounding.



Camera body 201F

CAUTION! When handling the circuit boards a grounded bench mat and a wrist strap must be used to prevent ESD damage.

Carry out the following checks/adjustments when a camera body is reassembled after a repair.
Note! Point 1 - 5 without camera shell.

1. To avoid damage to the coaxial and the ribbon cable, temporarily fit the control panel to the camera body with a piece of tape.

2. The camera body´s focal length is checked and adjusted by using the tool V-2229. The focal length is 71.40 mm ± 0.03 mm.

3.* Check the mirror 45° angle using above tool in combination with the sighting tube. Adjust the four supports in the mirror box by using the tools 901046 (front supports) and 904018 (rear supports).

4. Use the tool 902658 or V-2075/2151 for checking of the front key angle. Adjust if necessary. Cocked position 8° - 9° 3 Ncm. Overtravel 12° - 14° 14 Ncm.

5. Connect the camera body to the Service Test System and go through all checks in the given order according to the 201F menu. Note! Point 5:1 to 5:5 can be checked without sensor head and light source.

5:1 CAMERA STATUS: Make sure all switches are working properly with the speed ring in C-position.

Note! If the self timer board has been removed at any time, the timing between the pre-release switch (PRS) and the mirror must be checked.
Make sure that the speed ring is set to shutter speed mode.
Mount the test shell, 905002, with four screws. Fit the exposure gauge V-2354 in the release button and slowly rotate the micrometer clockwise and observe when the mirror is released. At the same time (not before) the PRS should change from "open" to "closed" on the screen. A slight delay is acceptable. This corresponds to 1.5 divisions on the scale.
Adjust, if necessary, by altering the position of the self timer board (Pos No. 42, page 9:2). Untighten the two screws (Pos. No. 40, page 9:2) and carefully change the position of the board in the direction required. Tighten the screws and recheck.

5:2 SPEED RING: Make sure all speed ring settings are indicated correctly.

5:3 TIMER INDICATOR: Check that the self timer LED is lighthing up.

Camera body 201F

5:4 VIEWFINDER SIGNAL: Check that the viewfinder LED is flashing.
Note! The sync cable must be connected to the TTL connector.

5:5 CURRENT: Check the consumption (max. 10 mA at 5.6 volt) and the drain (max. 20 uA at 5.6 volt).

5:6 SHUTTER: Start by adjusting the travel times. Use 1/1000 sec. and adjust the spring housing until both curtains have a speed between 9.6 - 9.9 ms. (0 ± 0.11 ms). At this point, also make a final adjustment of the braking mechanism if necessary. The brake is checked as follows: Release the camera. Rotate the 2nd shutter gear (Pos No. 25, page 16:2) and count the number of times the catch (Pos No. 4, page 17) and the brake plate (Pos No. 3, page 17) engage. (Min. 4 times). For an adjustment use the nut driver 903755 or 903474. (See page 3:9).

Check/adjust the speed 1/1000 sec. Use the "shutter speed" potentiometer for an adjustment. (See page 3:9). Max. deviation ± 0.3 EV.

5:7 FLASH SYNC: Check/adjust the flash sync. The delay is adjusted to 0 - 0.20 ms by altering the position of the first sync contact. (See page 3:9).

5:8 FLASH METERING: Check/adjust the flash meter. Use the "flash meter" potentiometer for adjustment. (See page 3:9). Max. deviation ± 0.3 EV. Use the setting ISO 100 and light output EV 15.

5:9 C-POSITION: Check/adjust the C-position. It is adjusted by extending or shortening the release arm 103389. (See page 3:9).

6. Make sure the four centering screws (Pos No. 14 and 17, page 10:2) are screwed in and then put the camera body in to the shell. Note! The control panel must go in first and then carefully follow with the camera body without damaging the coaxial and ribbon cable. Do not forget the pre-release button.

7. After aligning the rear plate/shell tighten the two rear screws (Pos No. 32, page 5:2) and adjust, if necessary, the horizontal relationship between the speed ring and the shell by the screws (Pos No. 14, page 10:2) which are accessible through the shell.

8. Adjust the vertical relationship between the speed ring and the shell by the screws (Pos No. 17, page 10:2) which are accessible through the shell and then tighten the two front screws (Pos No. 34, page 5:2).

9. Check the upper edge alignment of rear plate and shell. Adjust, if necessary, by the two screws (Pos No. 47, page 9:2) which are accessible through the shell.
Note! The rear edge of the shell must not protrude over the rear plate at any point.

10. Attach the control panel incl. the speed ring locking pin, winding crank mechanism, slide, speed ring grip and inner cover.

Camera body 201F

11.* Recheck the focal lenght and the 45° mirror angle.

12.* Check the flatness of the screen. Use the screen adapter V-4705 and the gauge V-2229 incl. ruler and indicator clock. The same measurement should be obtained at all four corners.
Adjust, if necessary, by the four screws (Pos No. 30, page 14:2).

13.* After the screen is correctly levelled the height must also be checked. Use the collimator V-4151 and the microscope V-2236.

15. Finally go through all checks once more. Minor adjustments are sometimes necessary to make. At this stage, it is also possible to use different light outputs when checking the flash meter since the camera body is mounted in the shell.

* The 200 series cameras are built slightly different from the 500 series cameras concerning the focusing screen adjustment. Due to the use of high precision test equipment at the assembly line, deviations from perfect 45º mirror angle is compensated for when adjusting the focusing screen position. Doing so we assure minimum focusing differences over the full image format between the images on the focusing screen and on the film.

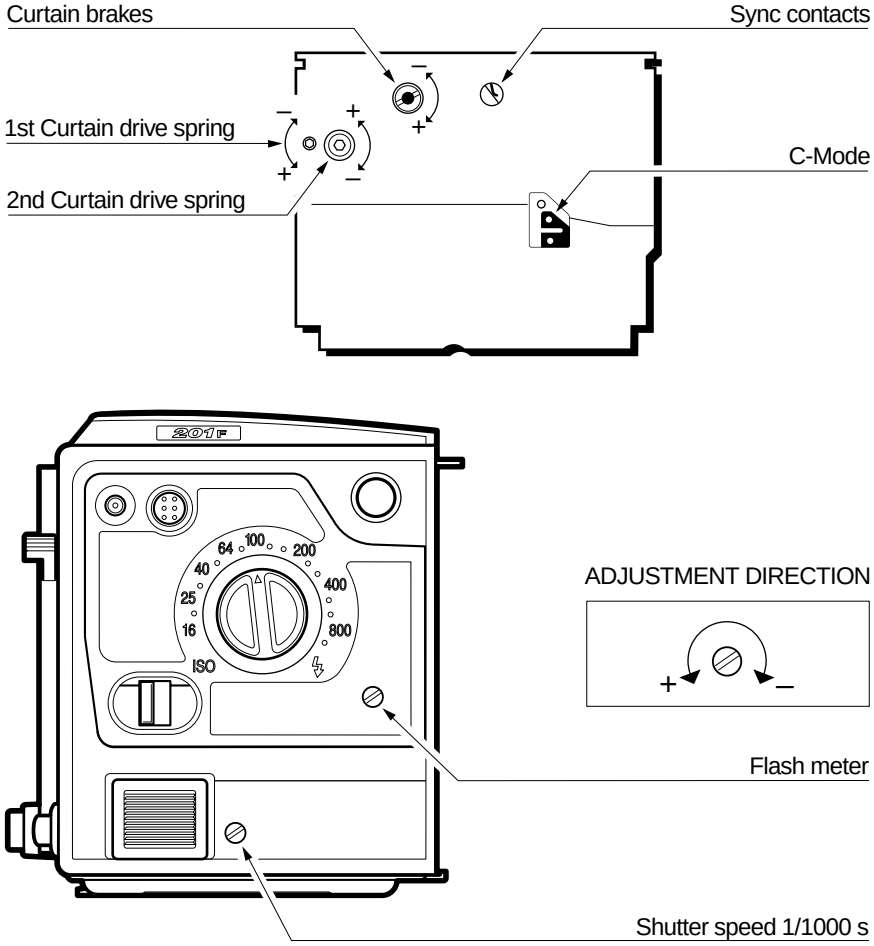
The result of the factory screen adjustment is, that the screen position may not be totally horizontal when tested in the gauge V-2229. This is still quite in order.

When servicing the 200 series cameras we recommend not to change the mirror angle, provided it is in tolerance when checked with the sighting tube in gauge V-2229. Deviations from perfect 45º angle has already been accompanied by non-horizontal focusing screen position.

However, if the mirror angle is out of tolerance, adjustment has to be made using the current procedures.

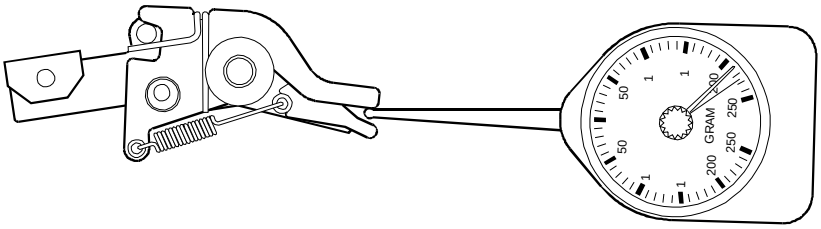
(Service Info No. 14/1995)

Camera body 201F



Magnet hold capability

The magnet hold capability can be checked according to the diagram below. A suitable scale, like the ZZ88, should be used. When measuring, it must indicate minimum 2 NCM (200 gram) before each latching lever is released.
If indicating less then 2 NCM, the magnets should be cleaned and then rechecked. If still less then 2 NCM after cleaning the Bottom mechanism plate, compl. (Part No. 105028) must be changed. Magnets and latching levers are not available as spare parts due to sensitive calibration procedures.



VHAB Tool No. = ZZ88, Scale

Camera body 202FA - 201F

Tool No.	Description	Used for
V-2211	Pin driver	Fitting the locating pin in the front plate and the front gear bracket
V-2229	Focal length gauge	Adjustment of the focal length, the mirror 45ºangle and the focusing screen
V-2236	Microscope	Focusing screen adjustment
V-2354	Exposure gauge	Adjustment of the timing between the pre-release switch (PRS) and the mirror
V-4151/52	Focusing tester	Focusing screen adjustment
V-4705	Focusing screen adapter	Focusing screen adjustment
901 044	Centering pin	Positioning the front gear bracket
901 045	Centering pin	Positioning the front gear bracket
901 046	Bender	Adjustment of the mirror 45º angle
901 061	Mounting tool	Mounting the inner cover
902 658	Key angle gauge	Adjustment of the front key angle
903 282	Key	Securing a nut on the bottom plate
903 570	Shutter gear holder	Securing the shutter gears when fitting the curtains

Camera body 202FA - 201F

Tool No.	Description	Used for
903 630	Bender	Adjustment of the late release switch
903 755	Nut driver	Fitting the control panel and the contact flex to the main circuit board
903 940	Key	Cocking the curtains before the intermediate gear is fitted
904 018	Bender	Adjustment of the mirror 45º angle and the auxiliary mirror position
904 020	Supporting tool	Protecting the control panel and the main circuit board when working on the right hand side of the camera
904 759	Adapter	To be used in combination with focal length gauge V-2229
905 002	Test shell	Adjustment of the timing between the pre-release switch (PRS) and the mirror
970 600	Service Test System	See page 4:3
905 138	Light box	See page 4:3 (optional)
ZZ89	Driver	To tighten the special type allen screw holding the chassis and the front plate together

Camera body 202FA - 201F

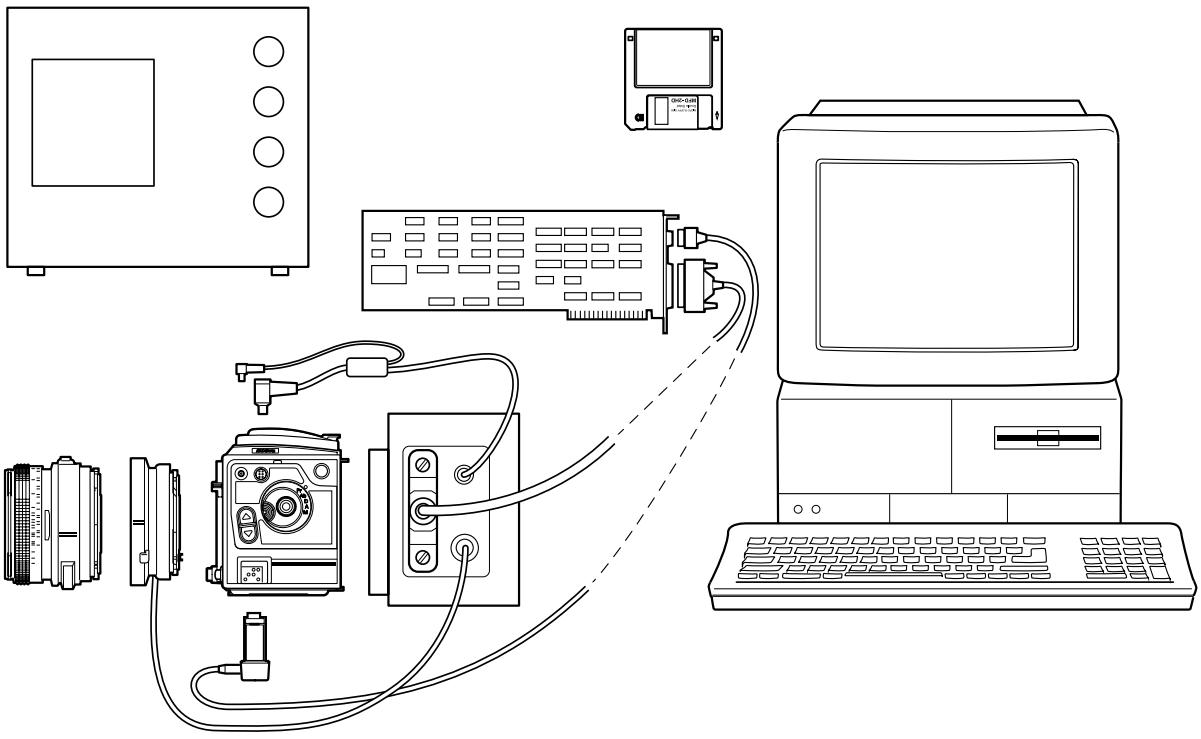
The PC based Service Test System has been developed for testing the 200 series cameras in Hasselblad authorized service centres. In addition it can be used for testing some functions on the 500 and 2000 series cameras and in the PME viewfinder.

The Service Test System contains the following:

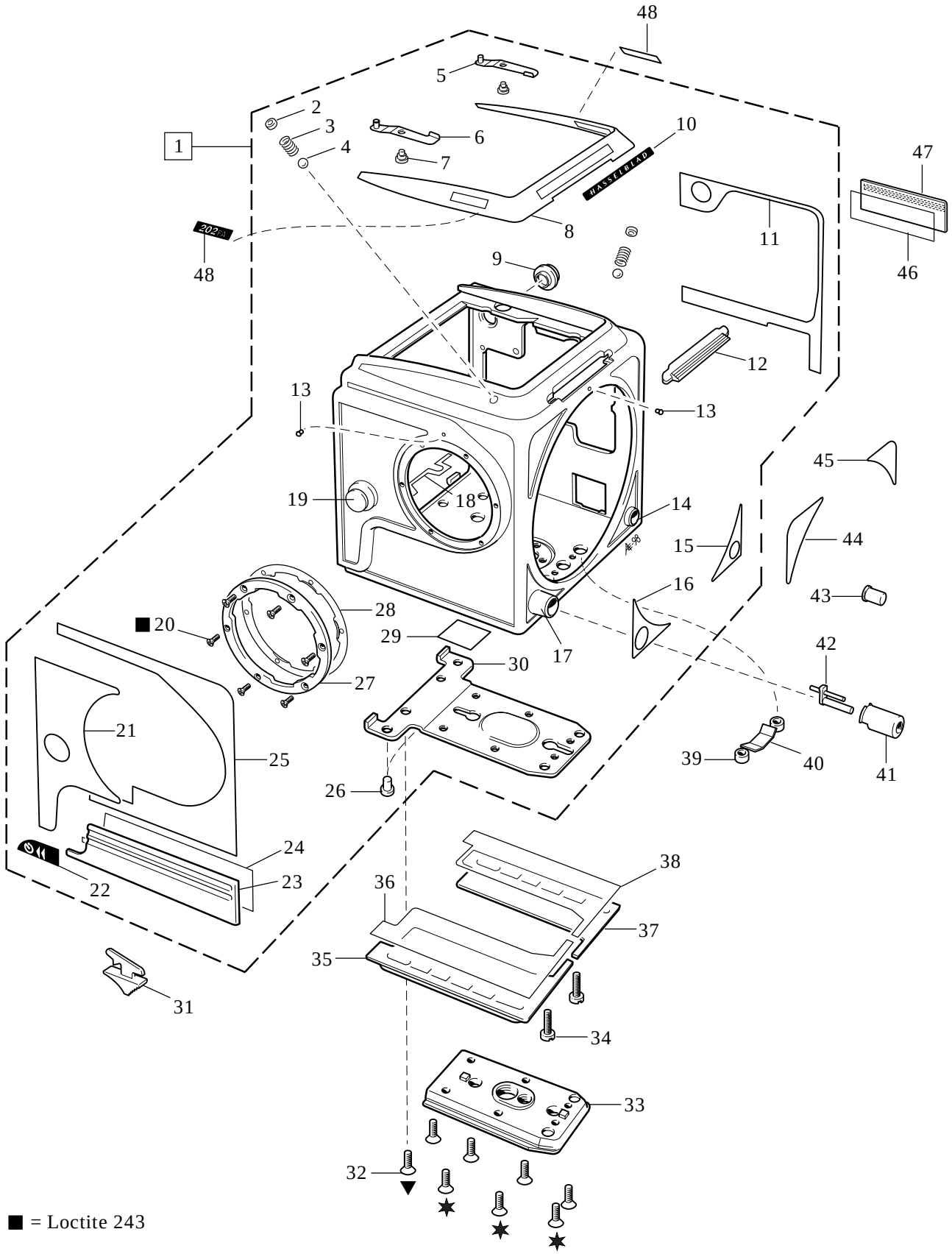
970 663	Diskette (3.5") containing the software
970 630	PC-board (full length ISA)
970 610	Sensor
663 83	Protective cover for Sensor
970 711	Extension tube
970 649	Battery compartment cable
970 648	Sensor cable
55034/23	Sync cable
	Instruction manual

Additional components required are the following:

Light box with LV15 capability - for instance Hasselblad 905 138
PC - IBM compatible
Planar FE80 mm lens
Planar CF80 mm lens



Camera body 202FA



■ = Loctite 243

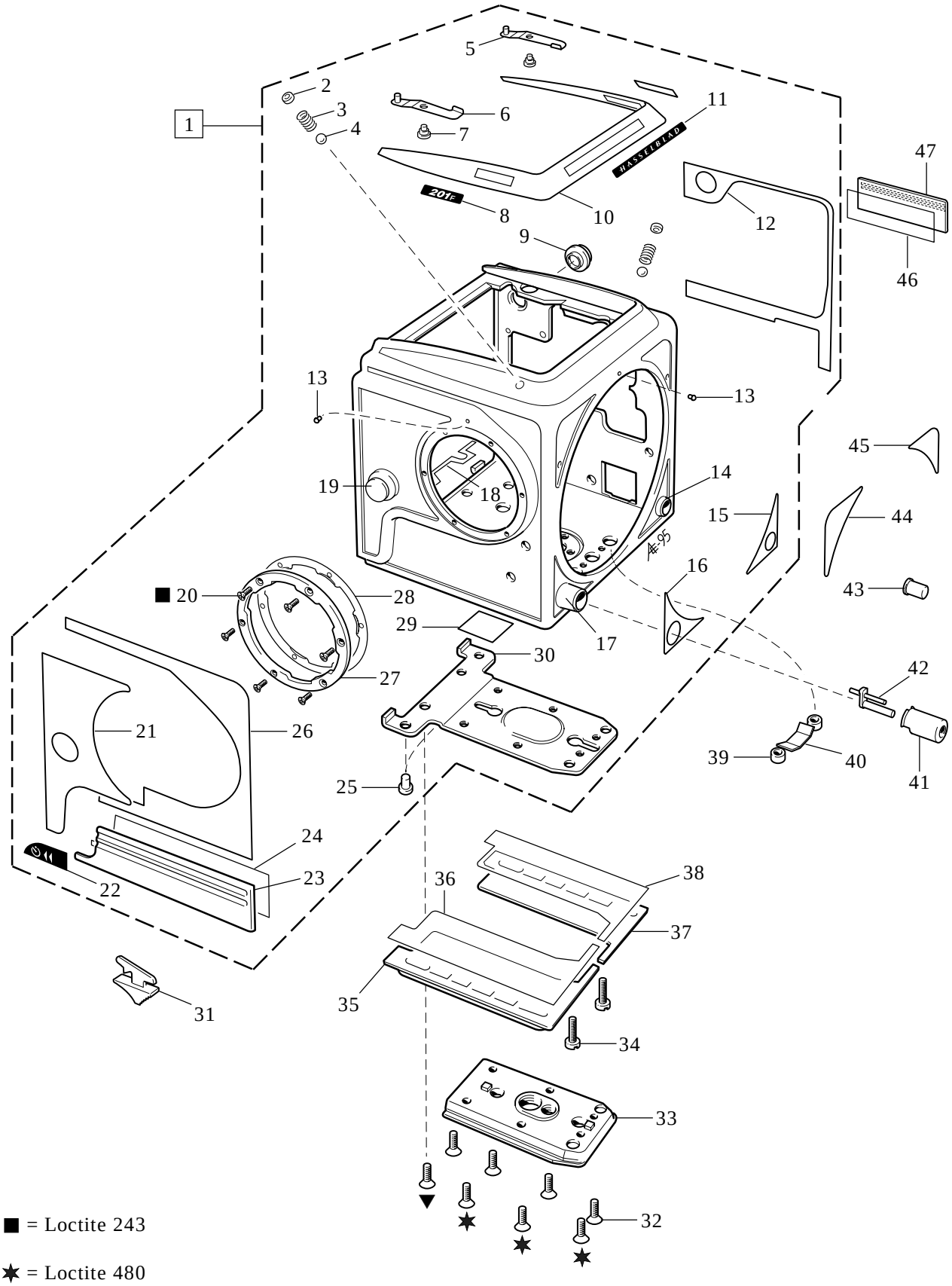
✶ = Loctite 480

▼ = Loctite 638

Camera body 202FA

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	105 025	Shell, complete (chrome)	Part No. 105026 (black)
2	2	12 978	Plate	
3	2	815 604	Spring	
4	2	809 120	Steel ball	
5	1	13 907	Holder, left	
6	1	13 906	Holder, right	
7	2	835 001	Pin	
8	1	105 475	Leather	
9	1	13 466	Strap button	
10	1	13 190-1	Name plate	
11	1	105 511	Leather	
12	1	105 365	Display window	
13	2	103 536	Index	
14	1	105 498	Bushing	
15	1	103 510	Leather	
16	1	103 509	Leather	
17	1	105 357	Bushing	
18	1	103 413	Spacer	
19	1	105 935	Strap button	
20	6	829 304	Screw	
21	1	105 509	Leather	
22	1	105 432	Plate	
23	1	107 390	Grip	
24	1	105 874	Tape	
25	1	105 862	Leather	
26	2	831 502	Rivet	
27	1	103 387	Bayonet	
28	1	103 388	Spring	
29	1	22 514	Reflection protector	
30	1	40 387	Support plate	
31	1	103 419	Pre-release	
32	8	829 760	Screw	
33	1	30 763	Tripod foot	
34	2	820 781	Screw	
35	1	30 762	Support, right	
36	1	105 872	Tape	
37	1	30 760	Support, left	
38	1	105 870	Tape	
39	2	810 620	Spacer	
40	1	103 424	Spring	
41	1	105 437	Release button	
42	1	105 953	Buffer	
43	1	13 139	Lens release button	
44	1	103 507	Leather	
45	1	103 508	Leather	
46	1	105 876	Tape	
47	1	105 956	Grip	
48	2	111 453	Name plate	

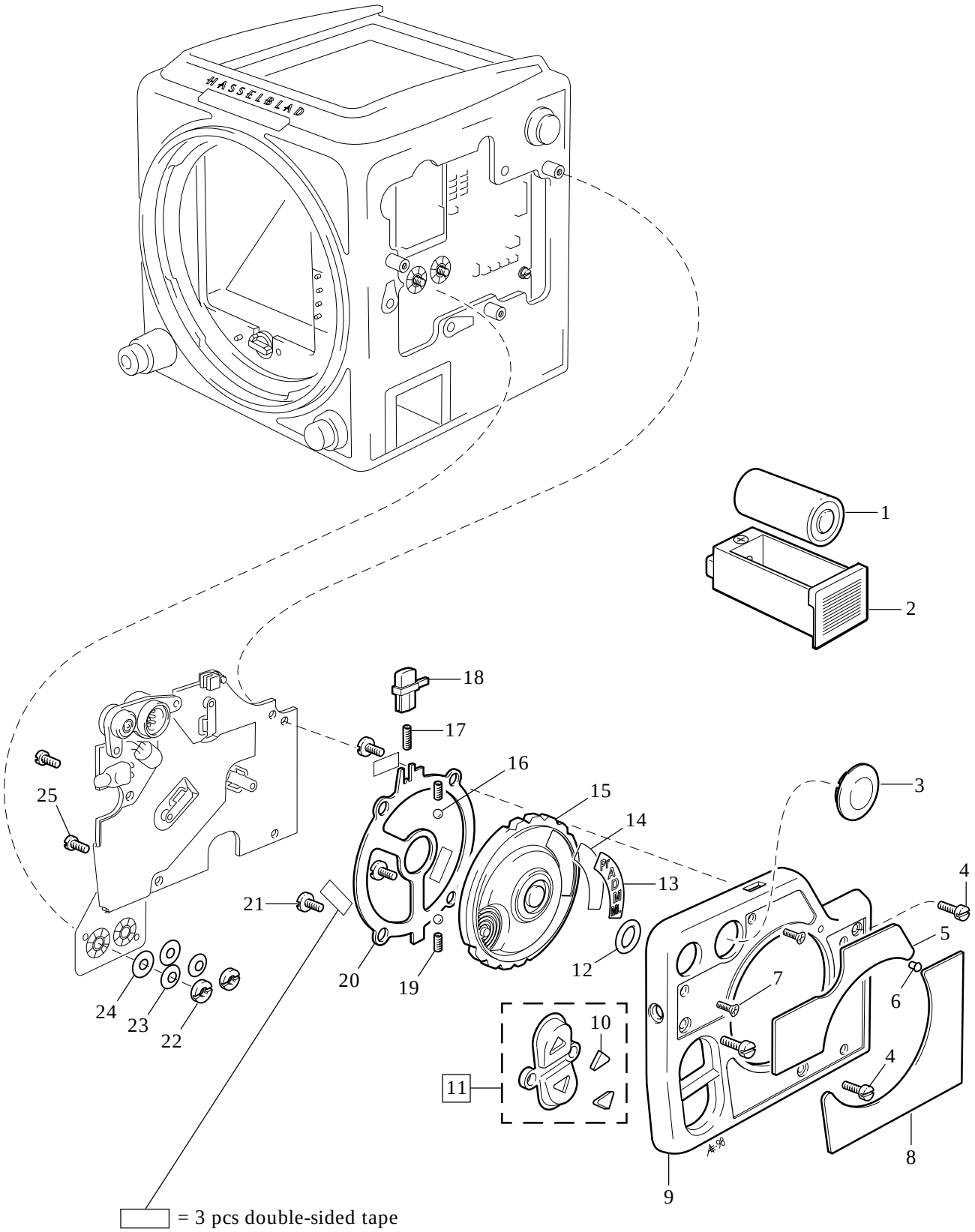
Camera body 201F



Camera body 201F

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	108 025	Shell, compl.	Chrome
		108 026	Shell, compl.	Black
2	2	12 978	Plate	
3	2	815 604	Spring	
4	2	809 120	Steel ball	
5	1	13 907	Holder, left	
6	1	13 906	Holder, right	
7	2	835 001	Pin	
8	2	108 416	Name plate	
9	1	105 935	Strap button	
10	1	105 926	Leather	
11	1	13 190-01	Name plate	
12	1	105 511	Leather	
13	2	103 536	Index	
14	1	105 498	Bushing	
15	1	103 510	Leather	
16	1	103 509	Leather	
17	1	105 357	Bushing	
18	1	103 413	Spacer	
19	1	13 466	Strap button	
20	6	829 304	Screw	
21	1	105 509	Leather	
22	1	105 432	Plate	
23	1	107 390	Grip	
24	1	105 874	Tape	
25	2	831 502	Rivet	
26	1	105 862	Leather	
27	1	103 387	Bayonet	
28	1	103 388	Bayonet spring	
29	1	22 514	Reflection protector	
30	1	40 387	Support plate	
31	1	103 419	Pre-release	
32	8	829 760	Screw	
33	1	30 763	Tripod foot	
34	2	820 781	Screw	
35	1	30 762	Support, right	
36	1	105 872	Tape	
37	1	30 760	Support, left	
38	1	105 870	Tape	
39	2	810 620	Spacer	
40	1	103 424	Spring	
41	1	105 437	Release button	
42	1	105 953	Buffer	
43	1	13 139	Lens release button	
44	1	103 507	Leather	
45	1	103 508	Leather	
46	1	105 876	Tape	
47	1	107 391	Grip	

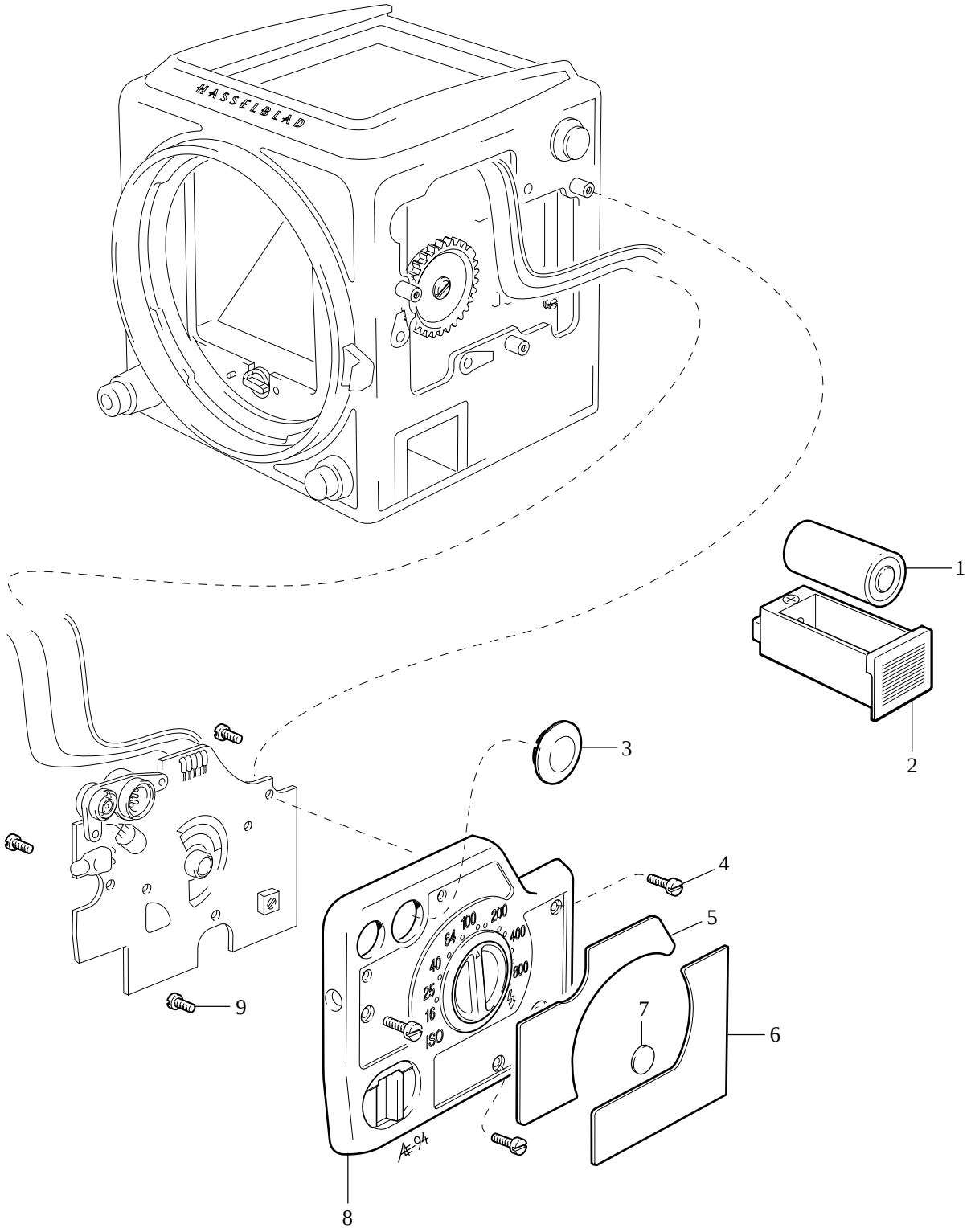
Camera body 202FA



Camera body 202FA

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1		Battery	6 volt, type PX28 Lithium
2	1	103 043	Battery compartment	
3	1	22 470	Socket cap	
4	3	820 645	Screw	
5	1	105 513	Leather	
6	1	103 536	Index	
7	2	829 335	Screw	
8	1	105 512	Leather	
9	1	105 304	Cover	
10	2	105 536	Indicator	
11	1	105 127	Adjustment button	
12	1	105 522	Ring	
13	1	111 456	Mode sign	
14	1	107 464	Tape	
15	1	105 119	Mode selector	
16	2	809 020	Steel ball	
17	1	815 510	Spring	
18	1	105 369	Display button	
19	2	815 507	Spring	
20	1	105 374	Plate	
21	3	105 520	Screw	
22	2	105 765	Nut	
23	2	105 833	Spring washer	
24	2	810 639	Washer	
25	2	105 521	Screw	

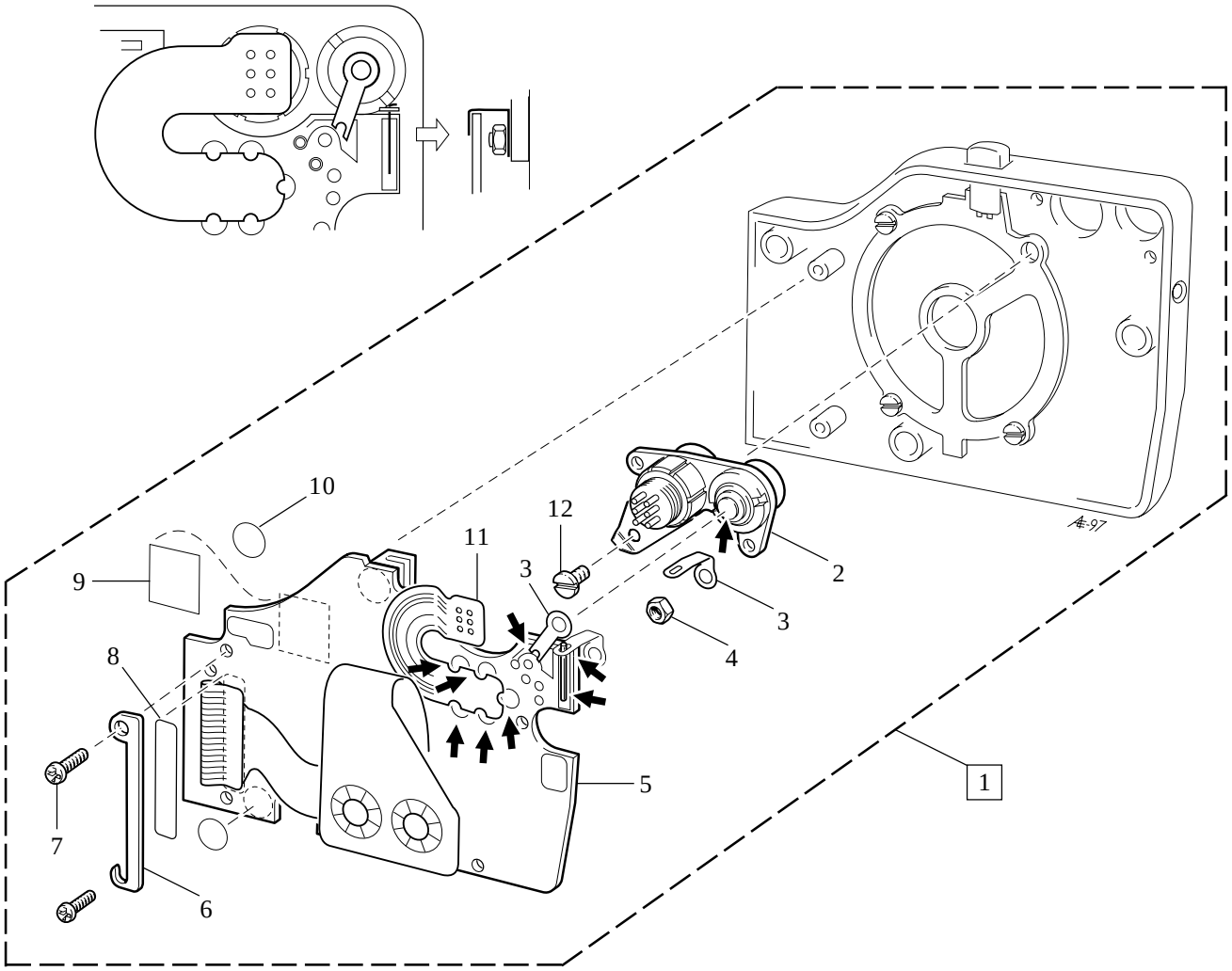
Camera body 201F



Camera body 201F

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1		Battery	6 volt, type PX28 Lithium
2	1	103 043	Battery compartment	
3	1	22 470	Socket cap	
4	3	820 645	Screw	
5	1	108 411	Leather	
6	1	108 410	Leather	
7	1	105 500	Cover	
8	1	108 304	Shell	
9	3	105 516	Screw	

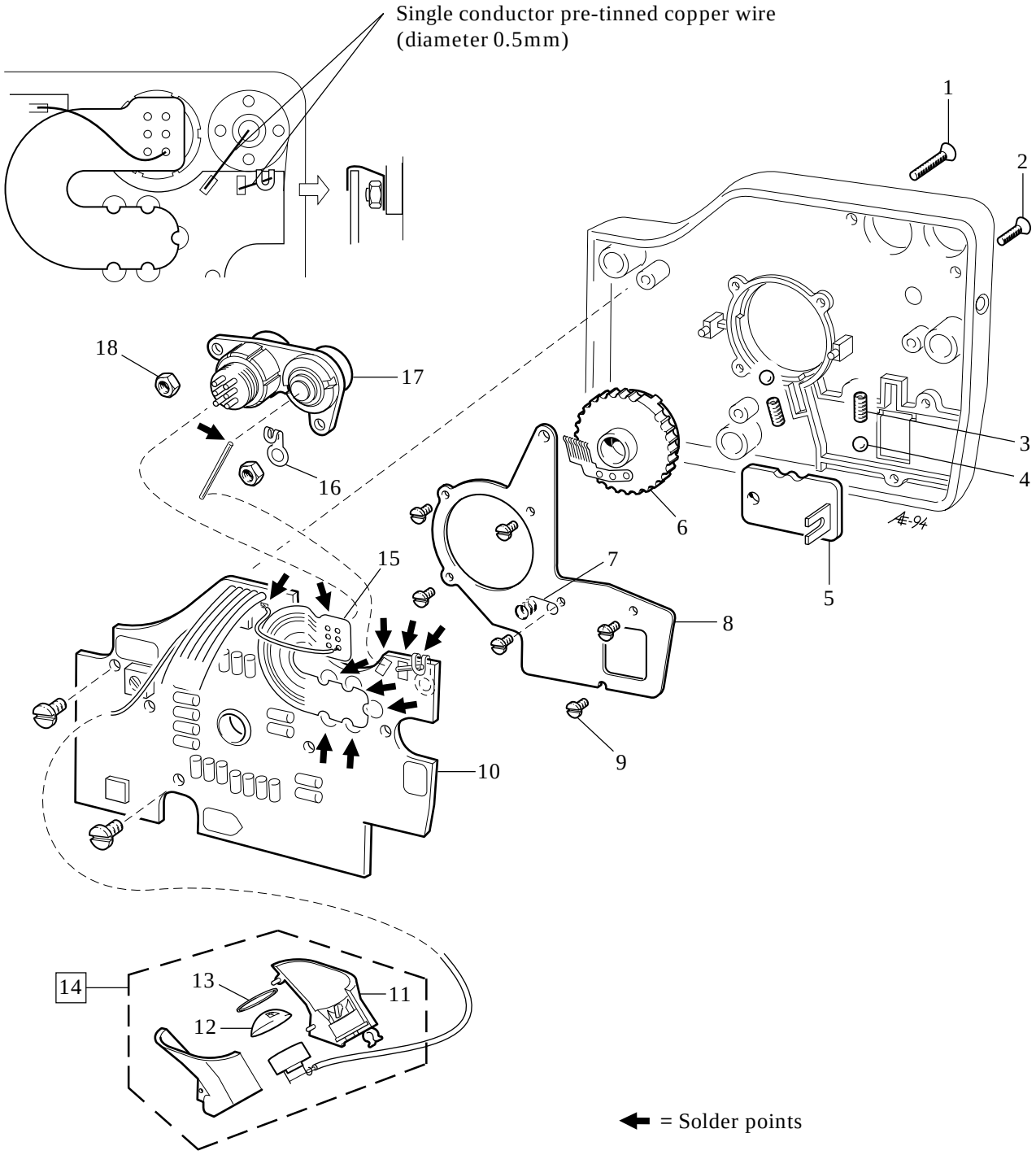
Camera body 202FA



Camera body 202FA

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	105 021	Control panel	
2	1	107 394	Sync terminal	
3	2	105 861	Soldering tag	Plain
4	1	828 301	Nut	
5	1	105 524	Circuit board	
6	1	105 918	Holder	
7	2	105 622	Screw	
8	1	107 405	Insulation tape	
9	1	105 896	Insulation plate	
10	2	105 916	Insulation plate	
11	1	105 866	SCA flex	
12	1	105 520	Screw	

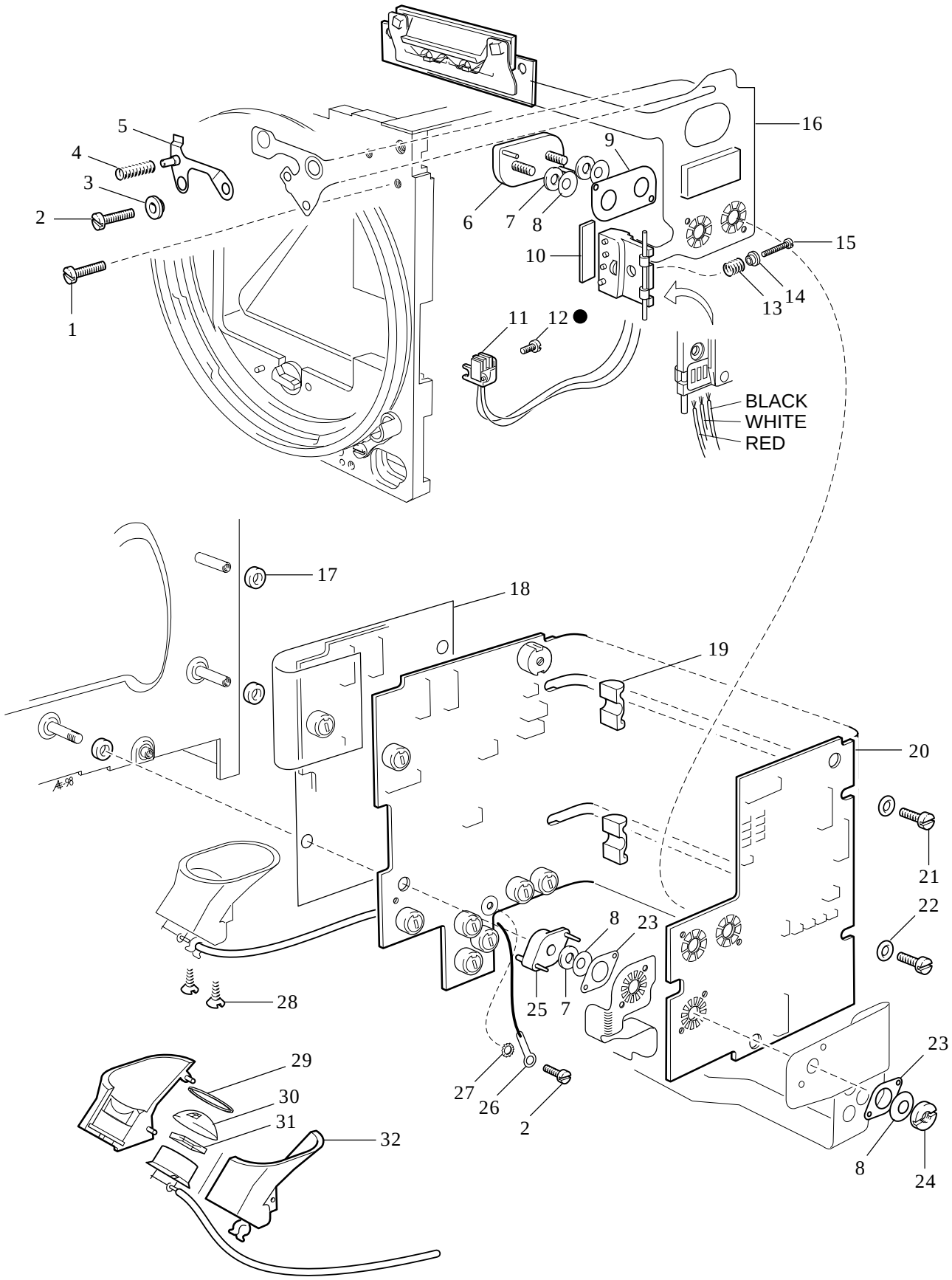
Camera body 201F



Camera body 201F

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	829 150	Screw	
2	1	823 345	Screw	
3	2	815 604	Spring	
4	2	809 020	Steel ball	
5	1	108 343	Catch	
6	1	308 107	Dial	
7	1	108 401	Spring	
8	1	108 344	Plate	
9	6	105 516	Screw	
10	1	108 887	Panel circuit board	
11	1	105 306	Housing	
12	1	105 403	Lens	
13	1	105 772	Ring	
14	1	108 047	Photo-diod, compl.	
15	1	105 866	SCA-flex	
16	1	105 858	Soldering tag	
17	1	108 048	Sync terminal	
18	2	828 301	Nut	

Camera body 202FA

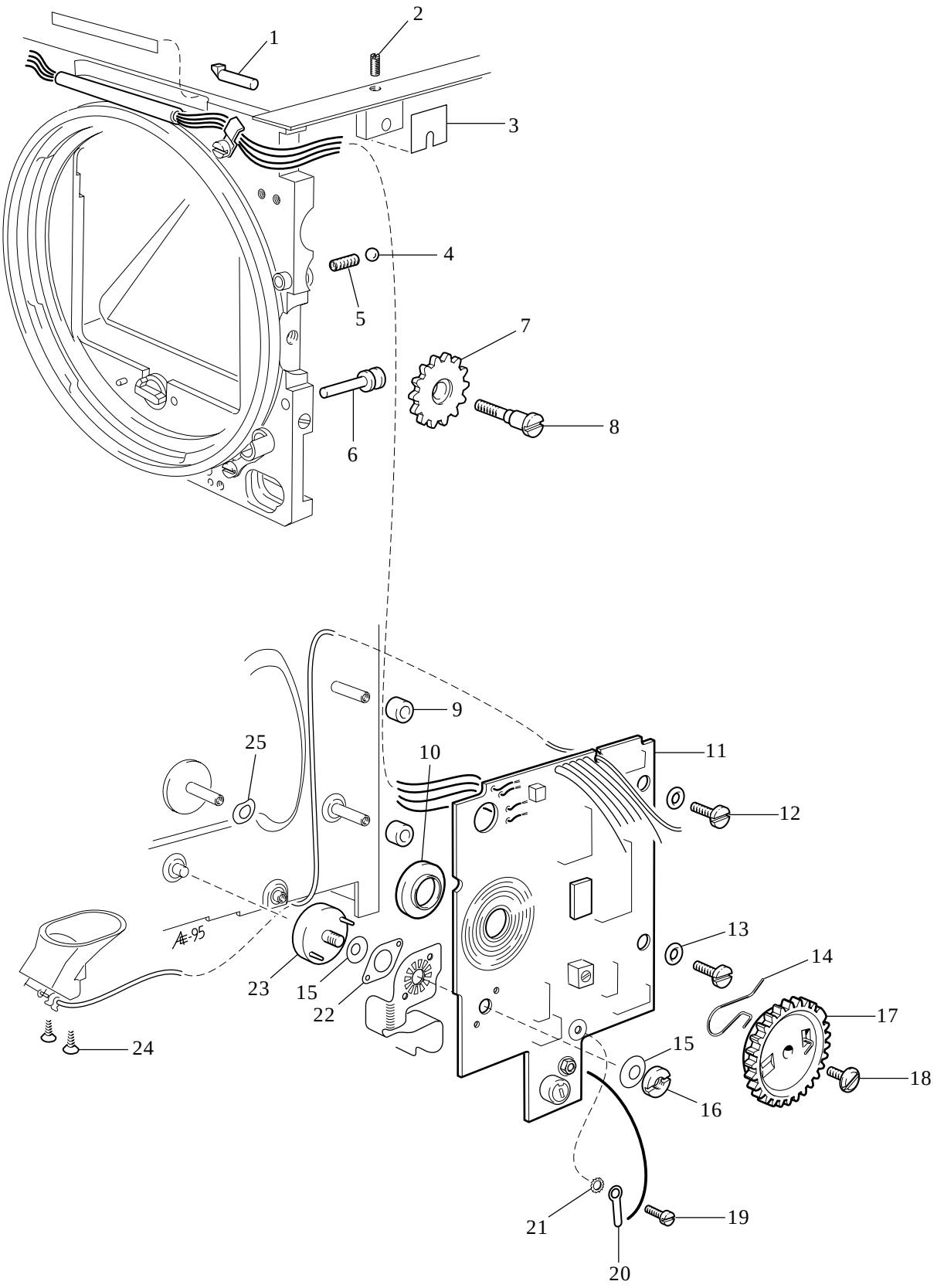


● = Loctite 225

Camera body 202FA

Pos No.	Pcs	Spare Part No.	Description	Remark
1	2	820 490	Screw	
2	2	820 439	Screw	
3	1	105 430	Bushing	
4	1	815 614	Spring	
5	1	107 449	Display contact	
6	1	105 154	Support	
7	3	105 834	Washer	
8	4	105 833	Spring washer	
9	1	105 931	Washer	
10	1	107 906	Reflection protector	
11	1	107 444	Front key switch	
12	1	820 430	Screw	
13	1	815 862	Spring	
14	1	105 430	Bushing	
15	1	820 480	Screw	
16	1	111 047	Display flex	
17	3	810 634	Spacer	
18	1	105 883	Insulation foil	
19	2	105 842	Spacer	
20	1	111 103	Main circuit board	
21	2	821 615	Screw	
22	2	107 421	O-ring	
23	2	105 932	Washer	
24	1	105 765	Nut	
25	1	105 625	Support	
26	1	105 861	Soldering tag	
27	1	810 407	Locking washer	
28	2	826 008	Screw	
29	1	105 772	Ring	
30	1	105 403	Lens	
31	1	105 431	Filter	
32	1	105 306	Housing	

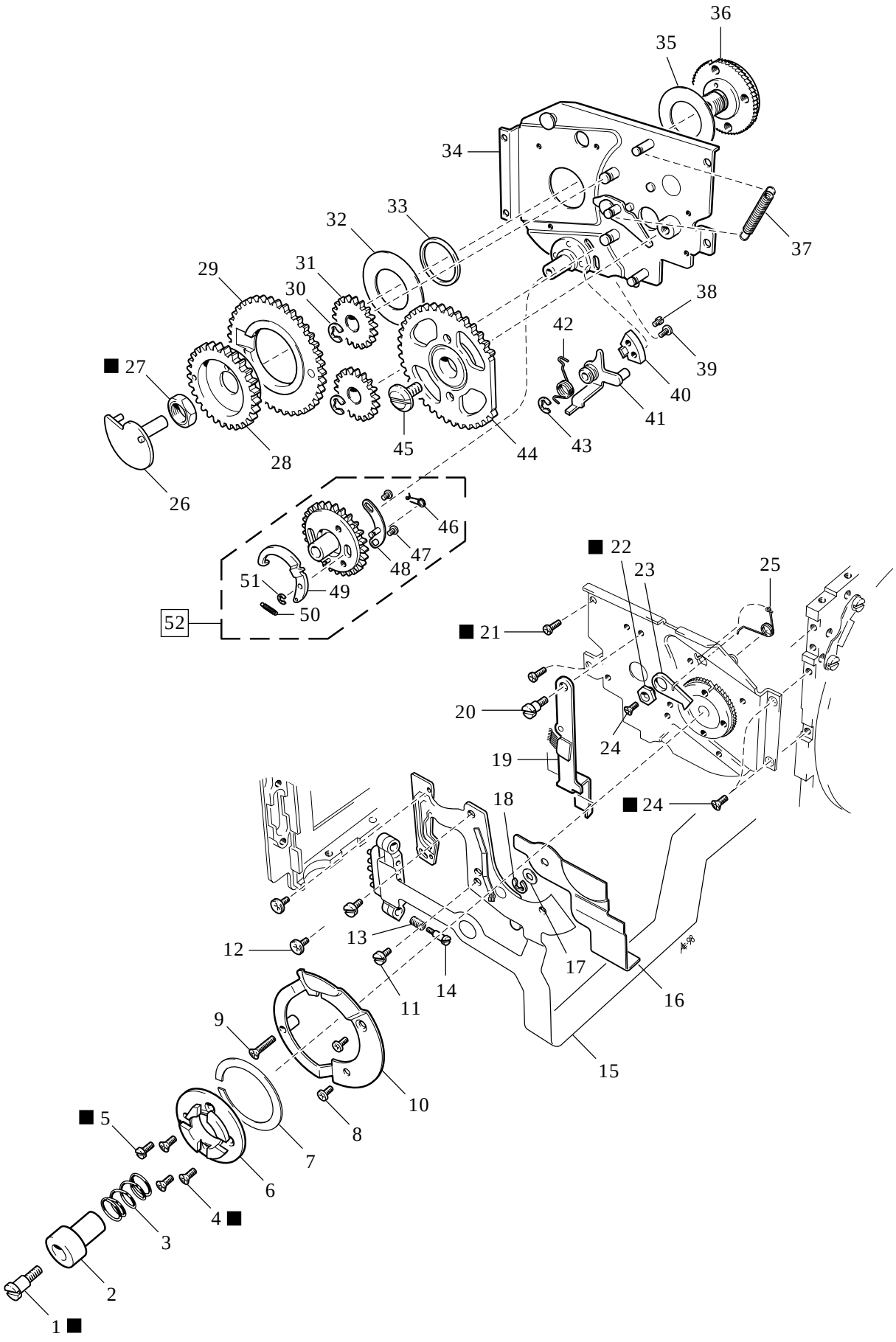
Camera body 201F



Camera body 201F

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	22 467	Light pipe	
2	1	825 420	Screw	
3	1	108 426	Insulator	
4	1	809 025	Steel ball	
5	1	815 514	Spring	
6	1	108 402	Locking pin	
7	1	103 465	Gear	
8	1	103 426	Screw	
9	2	810 645	Spacer	
10	1	108 403	Spacer	
11	1	108 886	Side circuit board	Modified from S/N 16EI10640
12	2	821 615	Screw	
13	2	810 645	O-ring	
14	1	108 420	Spring	
15	2	105 833	Spring washer	
16	1	105 765	Nut	
17	1	108 045	Gear	
18	1	821 401	Screw	
19	1	820 439	Screw	
20	1	105 861	Soldering tag	
21	1	810 407	Locking washer	
22	1	105 932	Washer	
23	1	108 110	Support	
24	2	826 008	Screw	
25	1	108 412	Spring washer	

Camera body 202FA

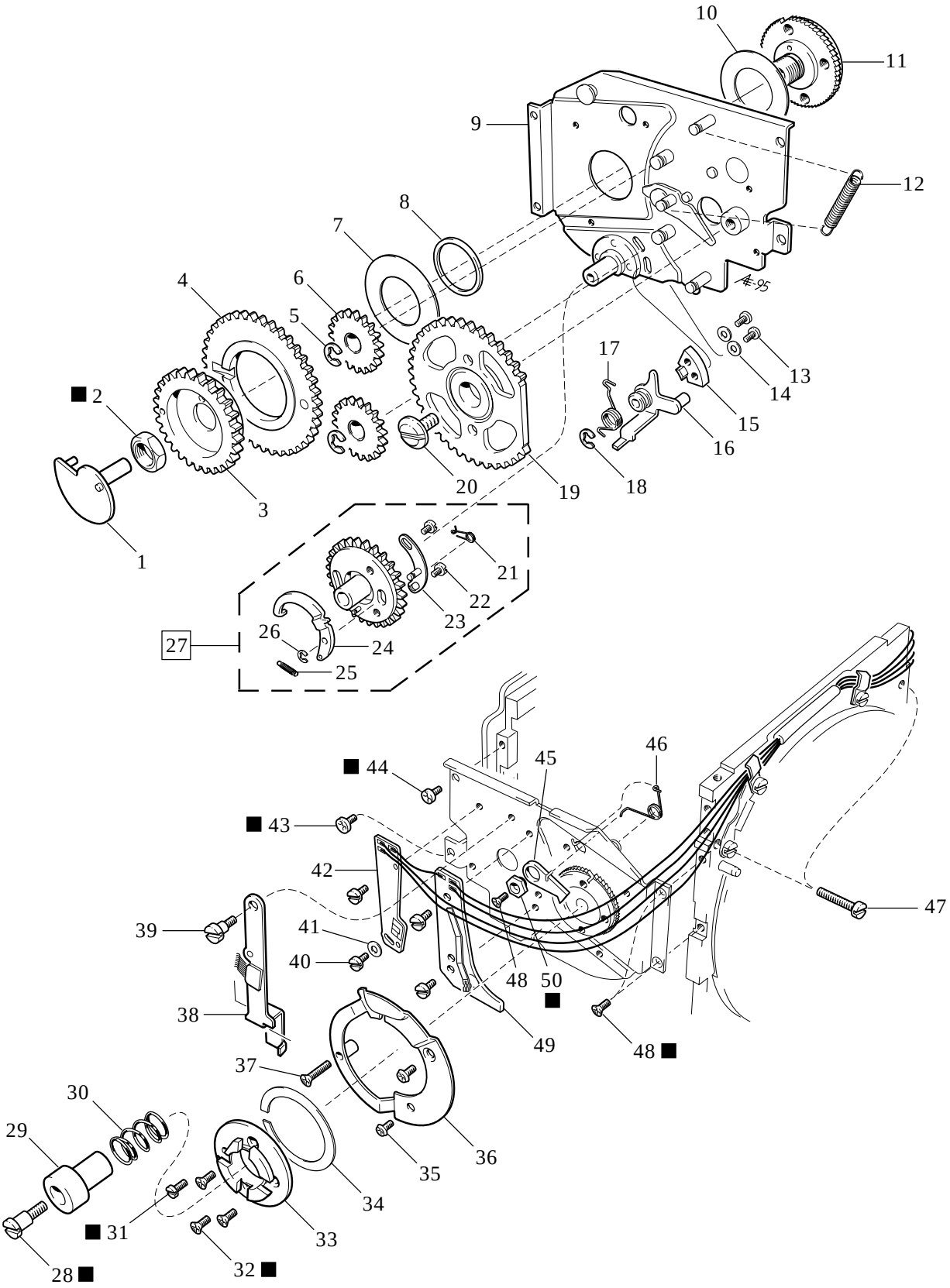


■ = Loctite 243

Camera body 202FA

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	822 606	Screw	
2	1	105 669	Double exposure button	
3	1	815 807	Spring	
4	3	829 640	Screw	
5	1	821 664	Screw	
6	1	105 766	Coupling	
7	1	105 750	Insulation foil	
8	2	830 620	Screw	
9	1	829 150	Screw	
10	1	105 769	Cover plate	
11	2	820 325	Screw	
12	2	830 020	Screw	
13	1	815 511	Spring	
14	1	105 412	Screw	
15	1	111 057	Contact flex	
16	1	105 360	Cover plate	
17	1	810 601	Washer	Alternatively none or 1 pc 810601 - 603, 607, 609
18	1	817 119	Clip	
19	1	105 105	Release arm	
20	1	822 436	Screw	
21	2	830 235	Screw	
22	1	103 472	Eccentric	
23	1	103 471	Catch	
24	3	829 435	Screw	
25	1	816 717	Spring	
26	1	105 670	Cam	
27	1	828 901	Nut	
28	1	103 482	Gear	
29	1	103 231	Gear	
30	2	817 119	Clip	
31	2	103 228	Gear	
32	1	810 940	Teflon washer, 0.15mm	
33	1	103 498	Ring	
34	1	105 053	Transport mechanism plate	
35	1	810 948	Teflon washer, 0.12mm	
36	1	105 677	Winding knob centre	
37	1	814 859	Spring	
38	1	822 331	Screw	
39	1	830 025	Screw	
40	1	103 473	Disengagement tooth	
41	1	105 110	Arm	
42	1	816 763	Spring	
43	1	817 115	Clip	
44	1	103 136	Gear	
45	1	821 730	Screw	
46	1	816 512	Spring	
47	2	830 216	Screw	
48	1	103 247	Support	
49	1	103 620	Catch	
50	1	814 312	Spring	
51	1	817 112	Clip	
52	1	105 108	Gear, complete	
		105 039	Transport mechanism plate	Complete

Camera body 201F

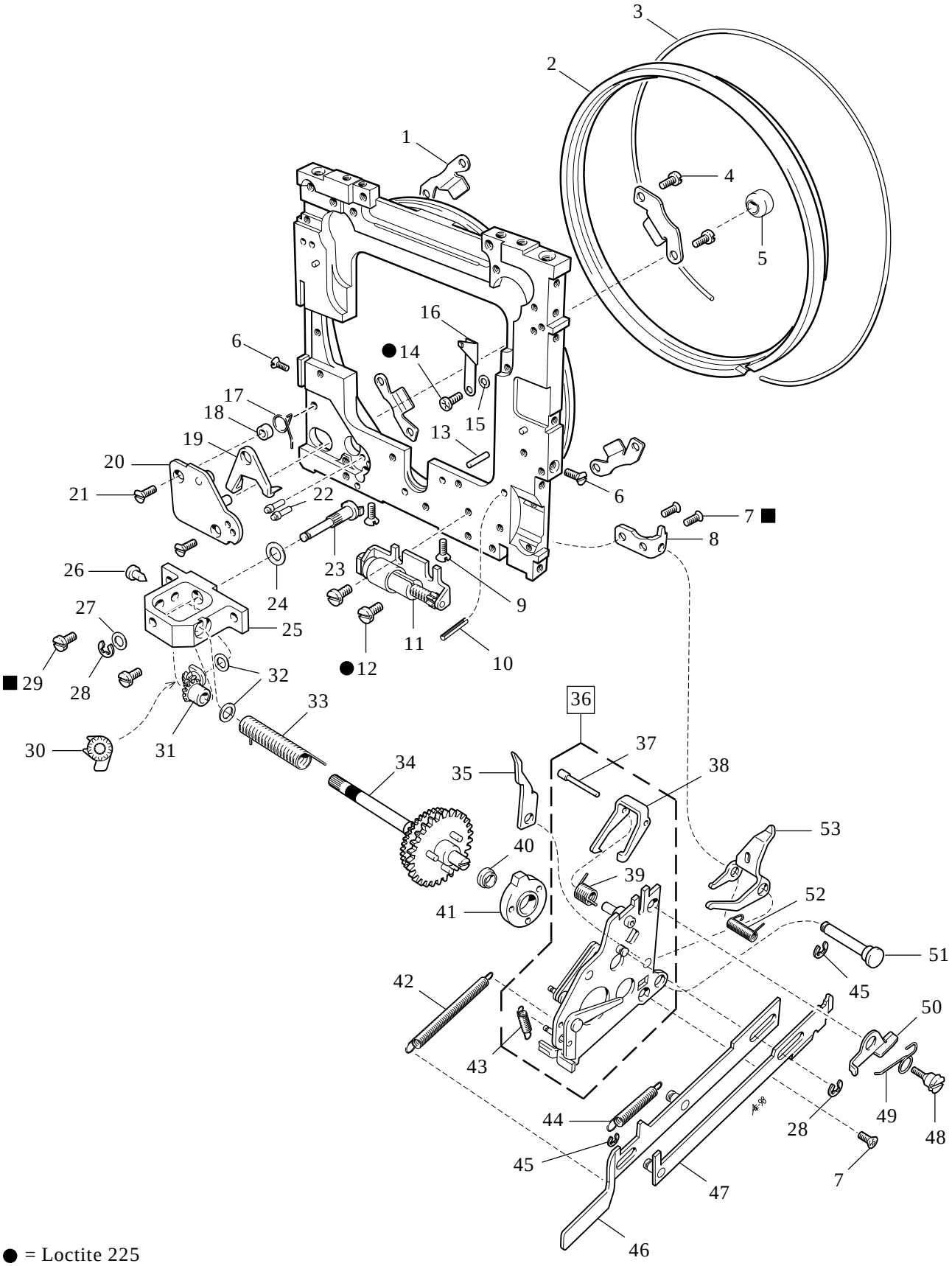


■ = Loctite 243

Camera body 201F

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	105 670	Cam	
2	1	828 901	Nut	
3	1	103 482	Gear	
4	1	103 231	Gear	
5	2	817 119	Clip	
6	2	103228	Gear	
7	1	810 940	Teflon washer, 0.15mm	
8	1	103 498	Ring	
9	1	105 053	Mechanism plate	105 048 below S/N 16EI10640
10	1	810 948	Teflon washer, 0.12mm	
11	1	105 677	Winding knob centre	
12	1	814 859	Spring	
13	2	830 225	Screw	
14	2	810 315	Washer	
15	1	103 473	Disengagement tooth	
16	1	105 110	Arm	
17	1	816 763	Spring	
18	1	817 115	Clip	
19	1	103 136	Gear	
20	1	821 730	Screw	
21	1	816 512	Spring	
22	2	830 216	Screw	
23	1	103 247	Support	
24	1	103 620	Catch	
25	1	814 312	Spring	
26	1	817 112	Clip	
27	1	105 108	Gear, compl.	
28	1	822 606	Screw	
29	1	105 669	Double exposure button	
30	1	815 807	Spring	
31	1	821 664	Screw	
32	3	829 640	Screw	
33	1	105 766	Coupling	
34	1	105 750	Insulation foil	
35	2	830 620	Screw	
36	1	105 769	Cover plate	
37	1	829 150	Screw	
38	1	105 105	Release arm	105 106 below S/N 16EI10640
39	1	822 436	Screw	
40	4	820 325	Screw	
41	1	810 405	Washer	
42	1	108 911	Self timer board	
43	1	830 225	Screw	
44	1	830 235	Screw	
45	1	103 471	Catch	
46	1	816 717	Spring	
47	2	820 490	Screw	
48	3	829 435	Screw	
49	1	108 900	Home position board	
50	1	103 472	Eccentric	
		105 039	Mechanism plate, compl.	105 027 below S/N 16EI10640

Camera body 202FA



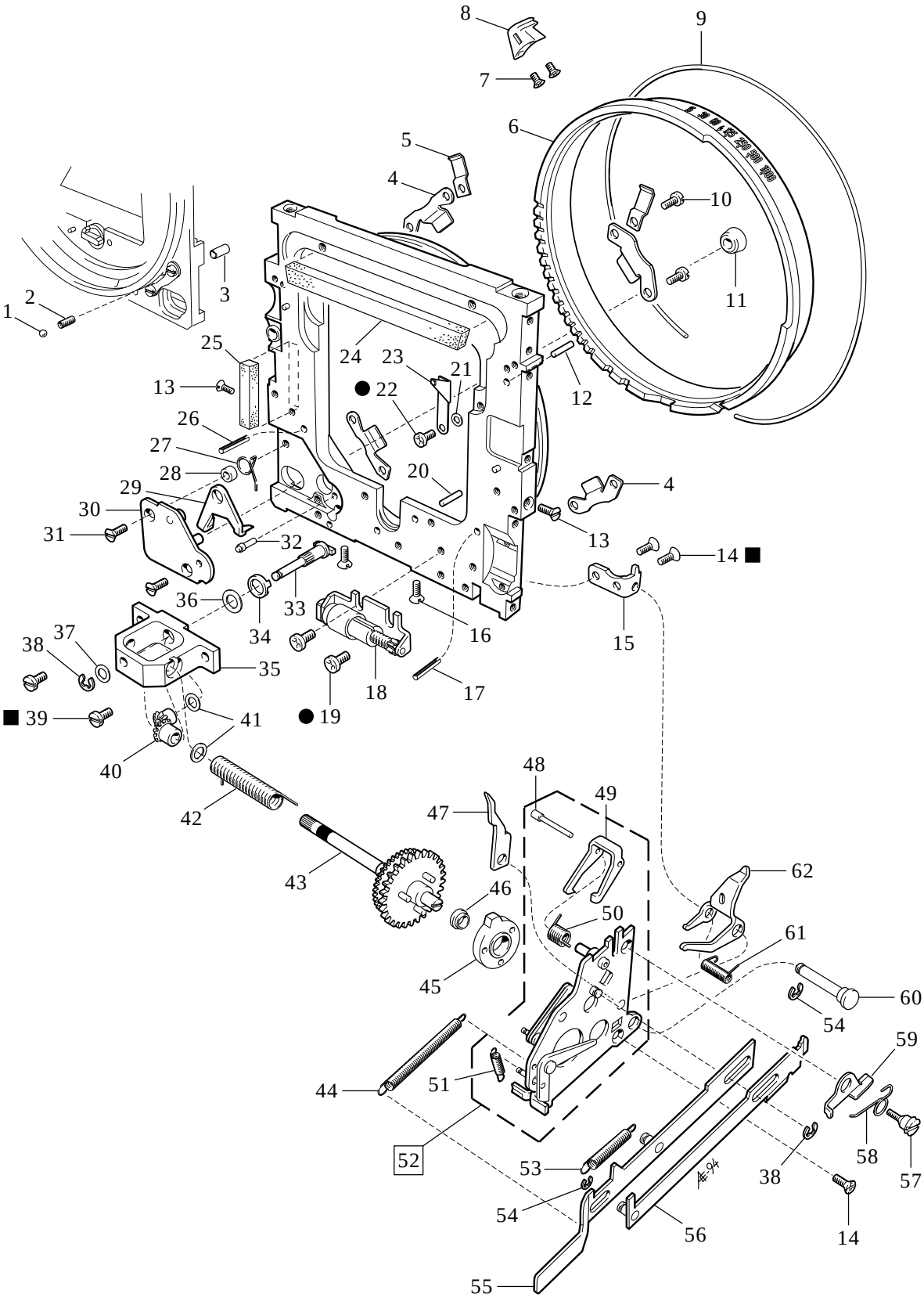
● = Loctite 225

■ = Loctite 243

Camera body 202FA

Pos No.	Pcs	Spare Part No.	Description	Remark
1	4	105 944	Bayonet flange	
2	1	111 328	Front ring	
3	1	103 438	Teflon tube	
4	8	820 425	Screw	
5	1	103 773	Teflon button	
6	2	823 435	Screw	
7	3	829 435	Screw	
8	1	107 408	Bracket	
9	2	823 635	Screw	
10	1	811 101	Pin	
11	1	103 045	Centrifugal brake	
12	2	820 440	Screw	
13	1	812 202	Pin	
14	1	830 225	Screw	
15	1	810 405	Washer	
16	1	107 430	Mirror catch	
17	1	816 858	Spring	
18	1	810 409	Spacer	
19	1	103 440	Lens catch	
20	1	105 107	Cover plate	
21	2	823 440	Screw	
22	2	836 107	Pin	
23	1	107 367	Key	
24	1	810 702	Washer	
25	1	103 352	Bracket	
26	1	105 525	Stop	
27	1	810 506	Washer	For adjustment 810507
28	2	817 115	Clip	
29	2	820 435	Screw	
30	1	105 120	Bevel gear	
31	1	103 556	Bevel gear	
32	2	810 702	Washer	For adjustment 810703 - 706
33	1	816 860	Spring	
34	1	103 124	Gear	
35	1	105 745	B-stop	
36	1	105 817	Release mechanism	
37	1	831 120	Pin	
38	1	103 355	Front key catch	
39	1	816 756	Spring	
40	1	103 442	Bearing	
41	1	103 441	Stop	
42	1	814 609	Spring	
43	1	814 505	Spring	
44	1	814 807	Spring	
45	2	817 112	Clip	
46	1	105 946	Release lever, rear	
47	1	103 117	Release lever, front	
48	1	822 430	Screw	
49	1	105 836	Spring	
50	1	105 835	Exposure catch	
51	1	107 407	Shaft	
52	1	816 716	Spring	
53	1	105 947	Release bridge	
		111 045	Front bayonet plate, complete	Incl. display flex, Part No. 111023

Camera body 201F



● = Loctite 225

■ = Loctite 243

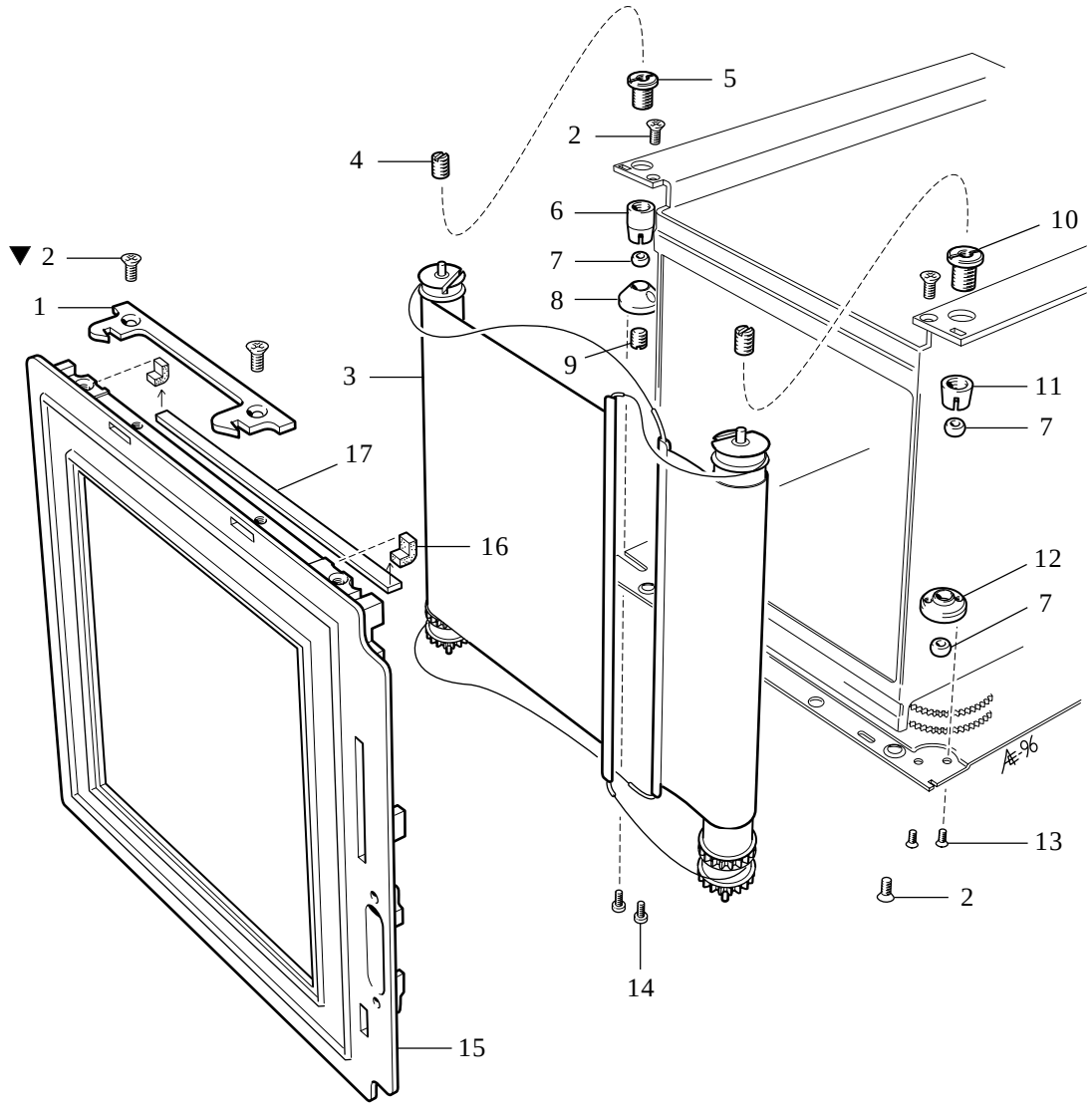
Camera body 201F

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	809 020	Steel ball	
2	1	815 507	Spring	
3	1	105 499	Steel ball retainer	
4	4	105 944	Bayonet flange	
5	2	12 453	Cable holder	
6	1	108 322	Speed ring	
7	2	826 002	Screw	
8	1	103 414	Grip	
9	1	103 438	Teflon tube	
10	8	820 425	Screw	
11	1	103 773	Teflon button	
12	1	812 312	Pin	
13	2	823 435	Screw	
14	3	829 435	Screw	
15	1	107 408	Bracket	
16	2	823 635	Screw	
17	1	811 101	Pin	
18	1	103 045	Centrifugal brake	
19	2	830 235	Screw	
20	1	812 202	Pin	
21	1	810 405	Washer	
22	1	830 225	Screw	
23	1	107 430	Mirror catch	
24	1	103 443	Foam plastic strip	
25	1	108 424	Foam plastic strip	
26	1	811 103	Pin	
27	1	816 858	Spring	
28	1	810 409	Spacer	
29	1	103 440	Lens catch	
30	1	105 107	Cover plate	
31	2	823 440	Screw	
32	1	836 107	Pin	
33	1	107 367	Front key	
34	1	13 371	Ring	
35	1	103 352	Bracket	
36	1	810 702	Washer	
37	1	810 506	Washer	
38	2	817 115	Clip	
39	2	820 435	Screw	
40	2	103 556	Bevel gear	
41	2	810 702	Washer	For adjustment 810 703, -04, -05
42	1	816 860	Spring	
43	1	103 124	Gear	
44	1	814 609	Spring	
45	1	103 441	Stop	
46	1	103 442	Bearing	
47	1	105 745	B-stop	
48	1	831 120	Pin	
49	1	103 355	Front key catch	
50	1	816 756	Spring	
51	1	814 505	Spring	
52	1	105 817	Release mechanism	
53	1	814 807	Spring	

Camera body 201F

Pos No.	Pcs	Spare Part No.	Description	Remark
54	2	817 112	Clip	
55	1	105 946	Release lever, rear	
56	1	103 117	Release lever, front	
57	1	822 430	Screw	
58	1	105 836	Spring	
59	1	105 835	Exposure catch	
60	1	107 407	Shaft	
61	1	816 716	Spring	
62	1	105 924	Release bridge	
		108 023	Front bayonet plate	Complete

Camera body 202FA

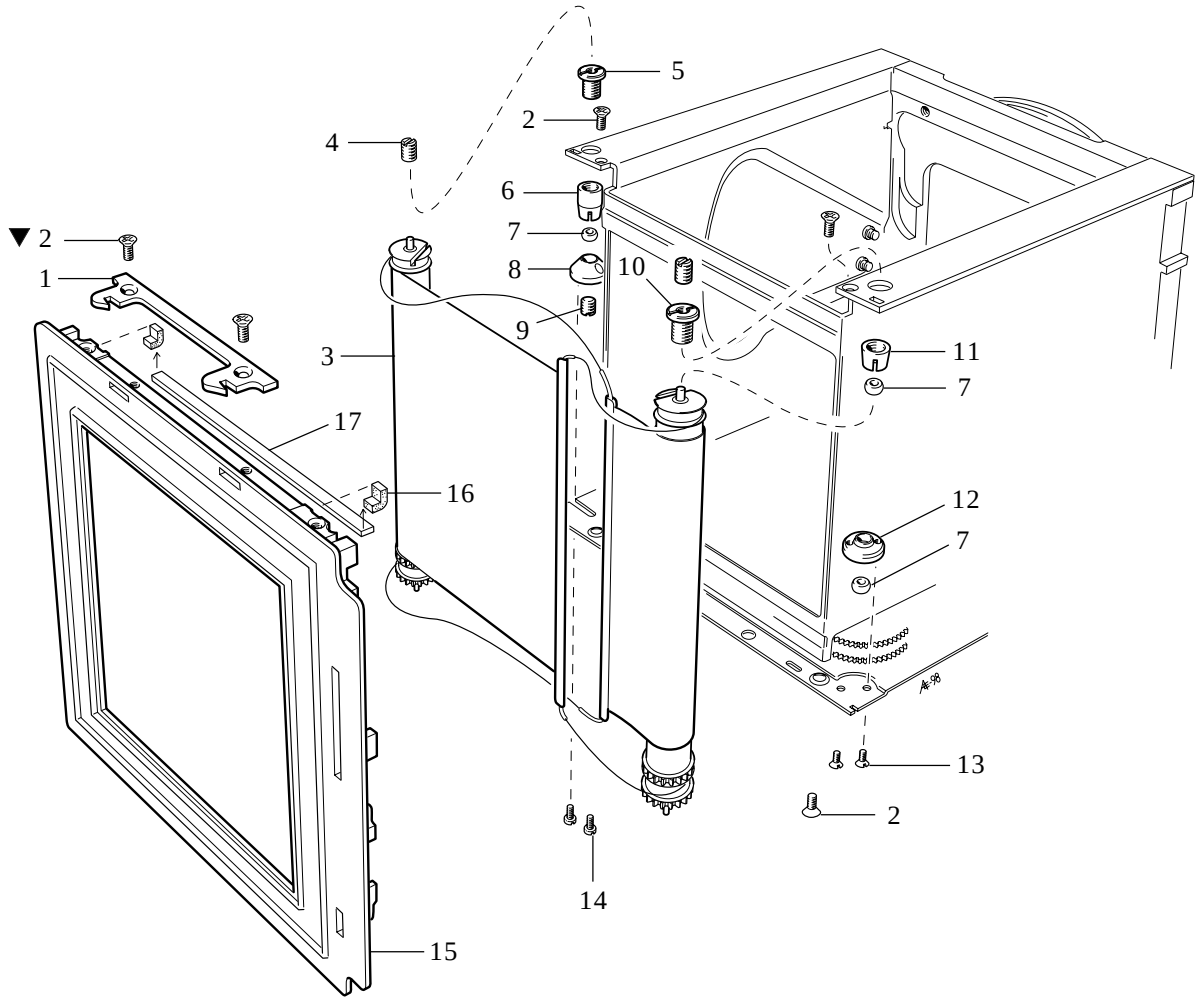


▼ = Loctite 638

Camera body 202FA

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	22 423	Magazine hook	
2	6	829 535	Screw	
3	1	107 359	Curtain set	
4	2	103 854	Screw	
5	1	103 837	Nut	
6	1	103 080	Holder	
7	3	103 839	Bearing	
8	1	103 858	Holder	
9	1	105 933	Screw	
10	1	103 838	Nut	
11	1	103 079	Holder	
12	1	103 081	Holder	
13	2	829 316	Screw	
14	2	830 620	Screw	
15	1	105 301	Rear plate	Please state serial No.
16	2	105 943	Light seal	
17	1	103 735	Light seal	

Camera body 201F

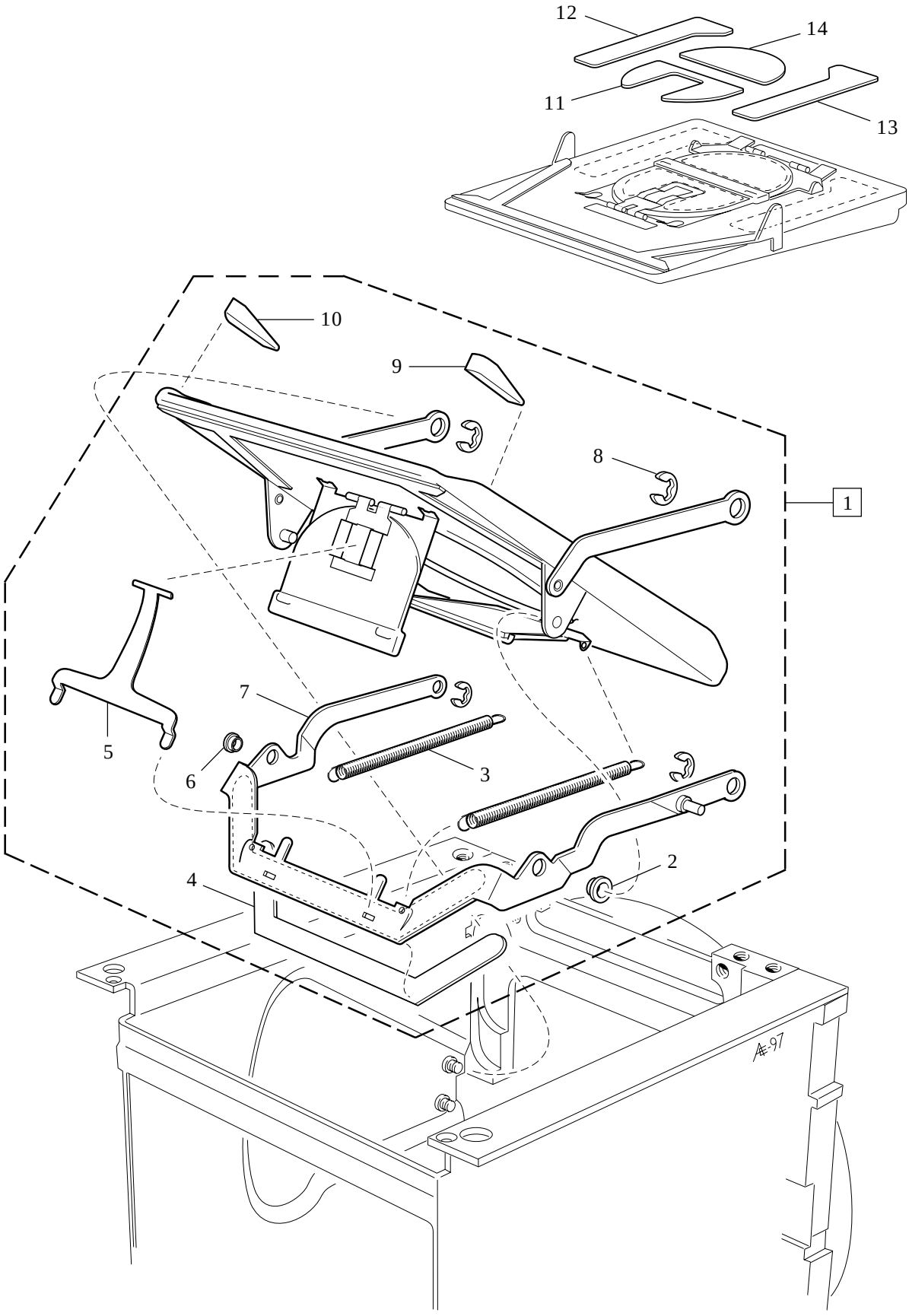


▼ = Loctite 638

Camera body 201F

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	22 423	Magazine hook	
2	6	829 535	Screw	
3	1	107 359	Curtain set	
4	2	103 854	Screw	
5	1	103 837	Nut	
6	1	103 080	Holder	
7	3	103 839	Bearing	
8	1	103 858	Holder	
9	1	105 933	Screw	
10	1	103 838	Nut	
11	1	103 079	Holder	
12	1	103 081	Holder	
13	2	829 316	Screw	
14	2	830 620	Screw	
15	1	108 301	Rear plate	Please state serial No.
16	2	105 943	Light seal	
17	1	103 735	Light seal	

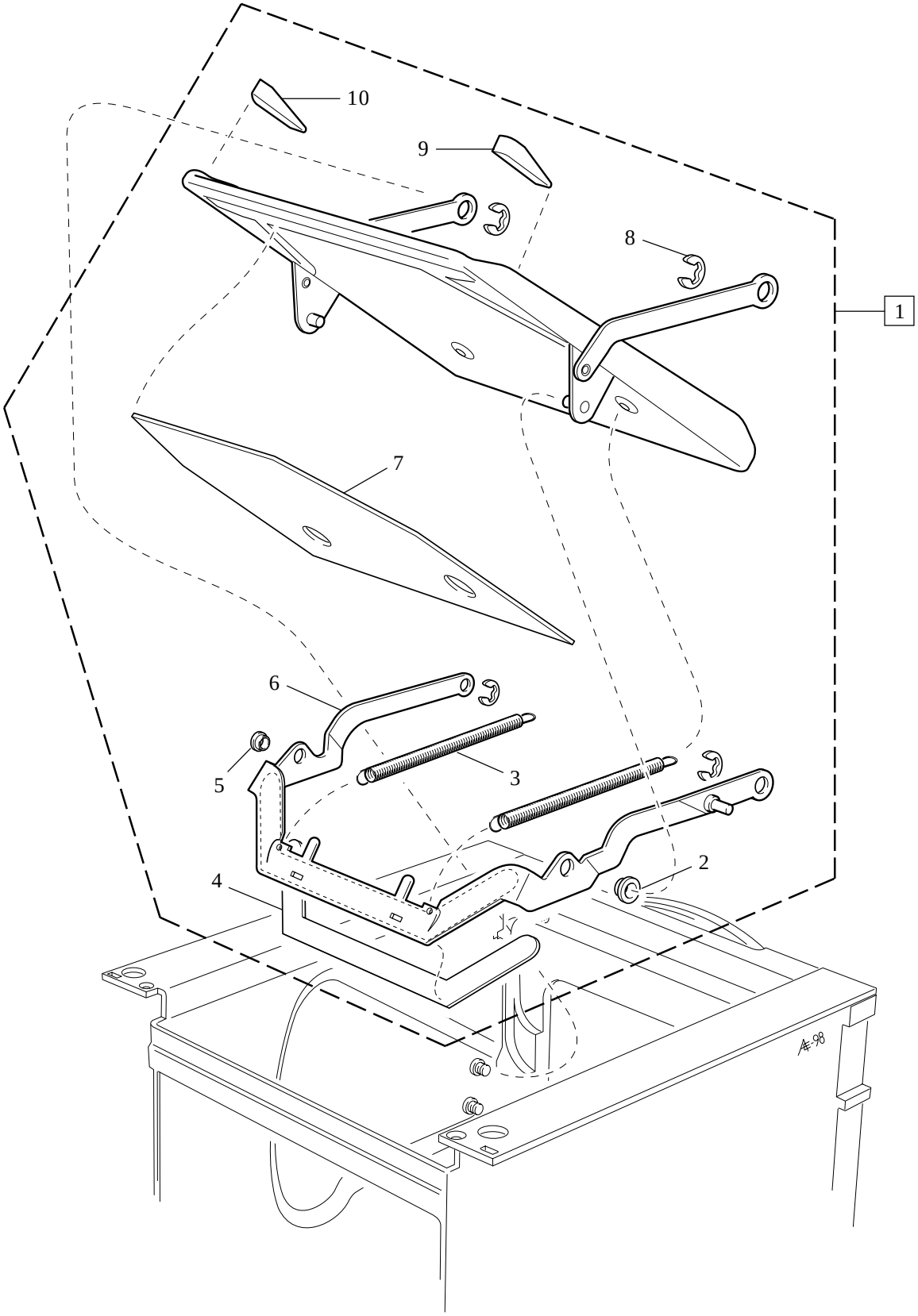
Camera body 202FA



Camera body 202FA

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	107 044	Mirror assembly	
2	1	108 409	Bushing	
3	2	814 319	Spring	
4	1	108 904	Reflection protector	
5	1	105 438	T-spring	
6	1	105 889	Bushing	
7	1	105 128	Mirror yoke	
8	4	817 115	Clip	
9	1	105 929	Back stop, right	
10	1	105 930	Back stop, left	
11	1	107 903	Reflection protector	
12	1	107 904	Reflection protector, right	
13	1	107 901	Reflection protector, left	
14	1	107 902	Reflection protector	

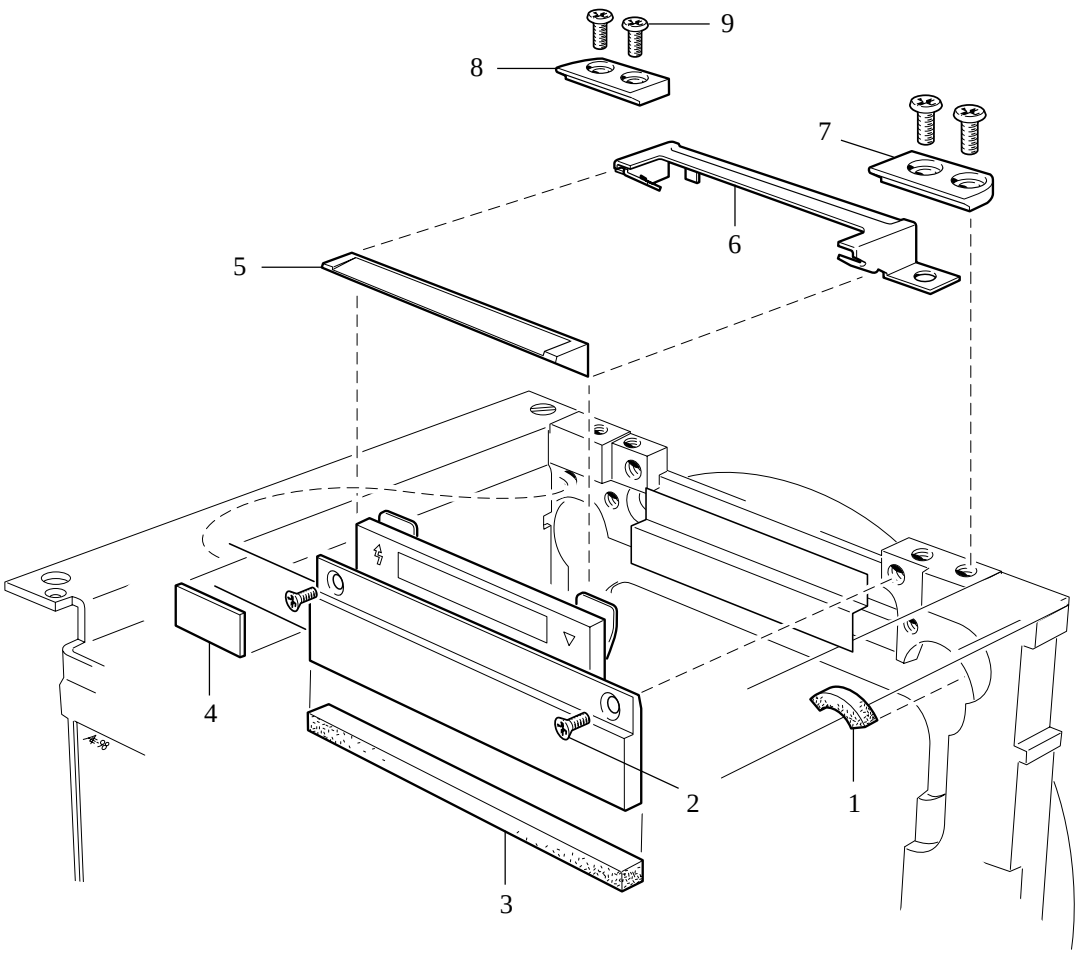
Camera body 201F



Camera body 201F

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	108 044	Mirror assembly, compl.	
2	1	108 409	Bushing	
3	2	814 319	Spring	
4	1	108 904	Reflection protector	
5	1	105 889	Bushing	
6	1	105 128	Mirror yoke	
7	1	108 903	Reflection protector	
8	4	817 115	Clip	
9	1	105 929	Back stop, right	
10	1	105 930	Back stop, left	

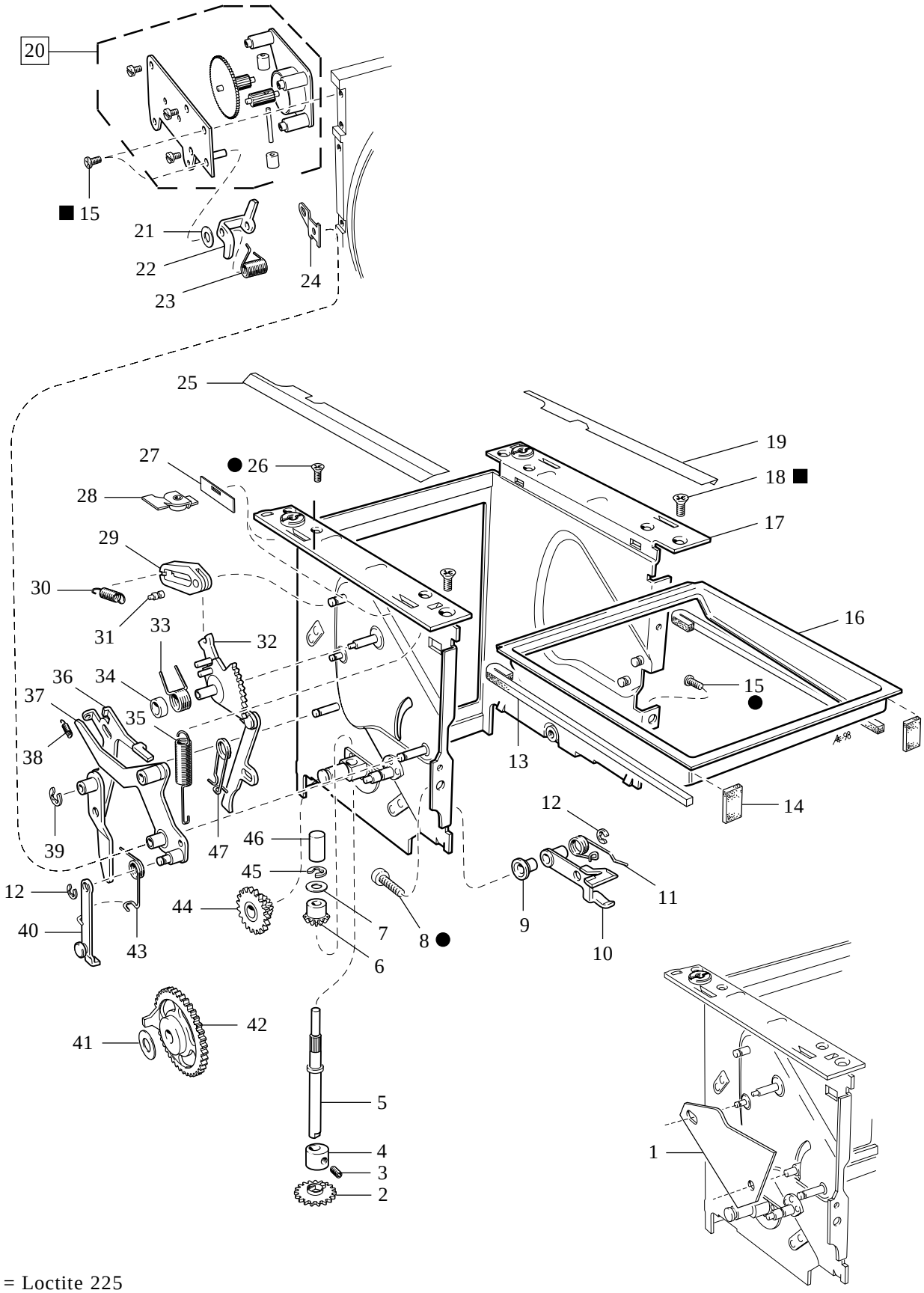
Camera body 202FA



Camera body 202FA

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	105 941	Light seal	
2	2	829 435	Screw	
3	1	105 459	Light seal	
4	1	105 940	Light seal	
5	1	105 358	Display prism	
6	1	105 350	Prism holder	
7	1	105 458	Holder, right	
8	1	105 474	Holder, left	
9	4	830 235	Screw	

Camera body 202FA



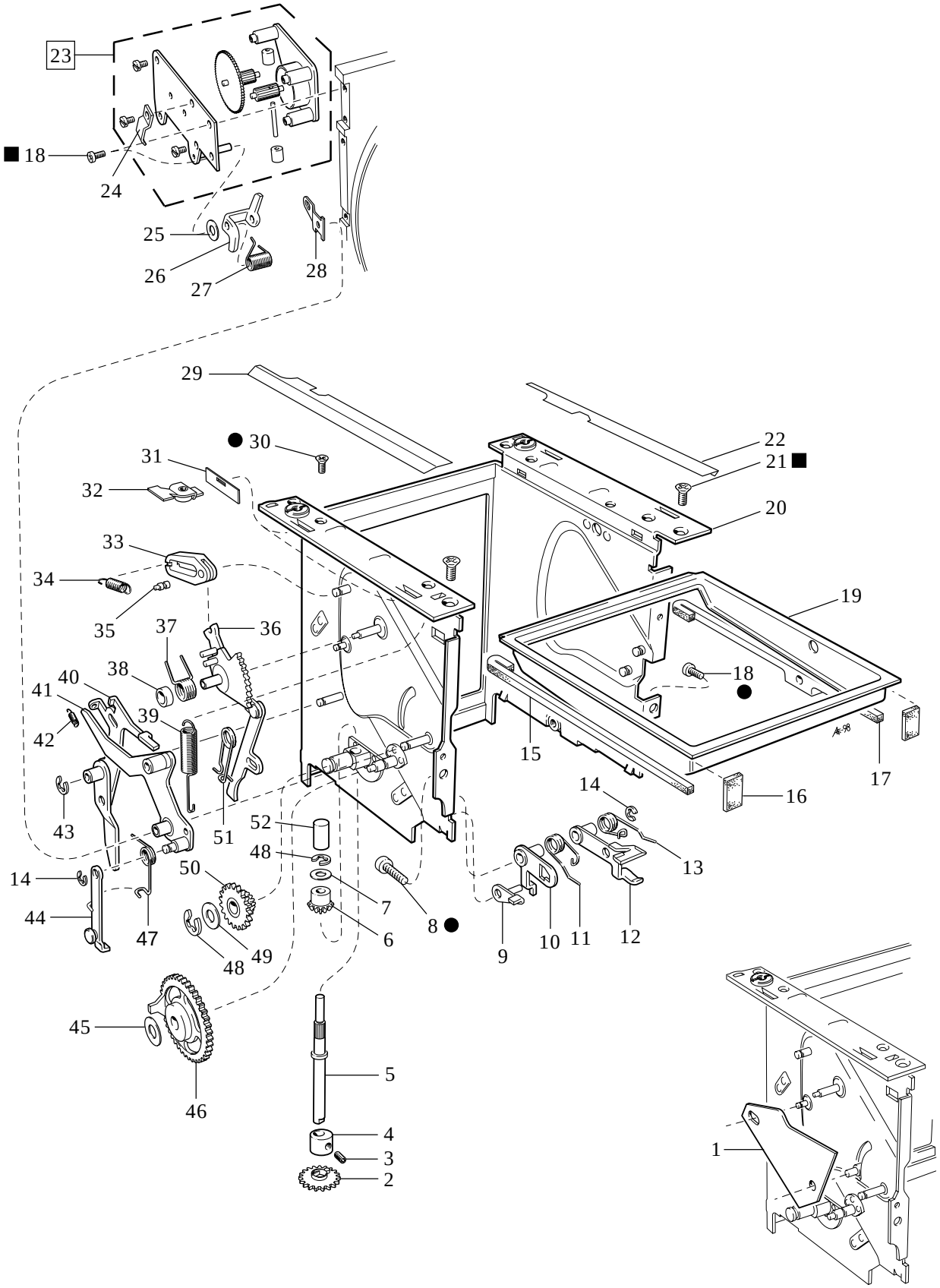
● = Loctite 225

■ = Loctite 243

Camera body 202FA

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	107 399	Light seal	
2	1	103 404	Gear	
3	1	825 660	Screw	
4	1	107 416	Eccentric	
5	1	105 923	Drive shaft	
6	1	103 556	Bevel gear	
7	1	810 618	Washer	
8	1	821 407	Screw	
9	1	103 853	Spacer	
10	1	105 741	Release lever	
11	1	816 755	Spring	
12	2	817 112	Clip	
13	2	103 453	Light seal	
14	2	105 942	Light seal	
15	3	830 235	Screw	
16	1	105 130	Screen frame	
17	1	105 022	Chassis	
18	2	829 535	Screw	
19	1	103 583	Foil, left	
20	1	107 372	Brake	
21	1	810 315	Washer	
22	1	107 365	Lever	
23	1	816 816	Spring	
24	1	103 545	Support	
25	1	103 576	Foil, right	
26	4	829 330	Screw	
27	4	103 578	Foil	
28	4	103 118	Screen support	
29	1	103 401	Flip-flop	
30	1	814 714	Spring	
31	1	103 407	Pivot	
32	1	105 887	Actuating lever	
33	1	816 760	Spring	
34	1	810 619	Spacer	
35	1	814 901	Spring	
36	1	105 707	Release lever	
37	1	105 756	Driving arm	
38	1	814 501	Spring	
39	1	817 115	Clip	
40	1	105 757	B-arm	
41	1	810 210	Washer	
42	1	105 109	Gear	
43	1	816 514	Spring	
44	1	105 863	Gear	
45	1	817 119	Clip	
46	1	103 495	Rubber stop	
47	1	816 613	Spring	

Camera body 201F



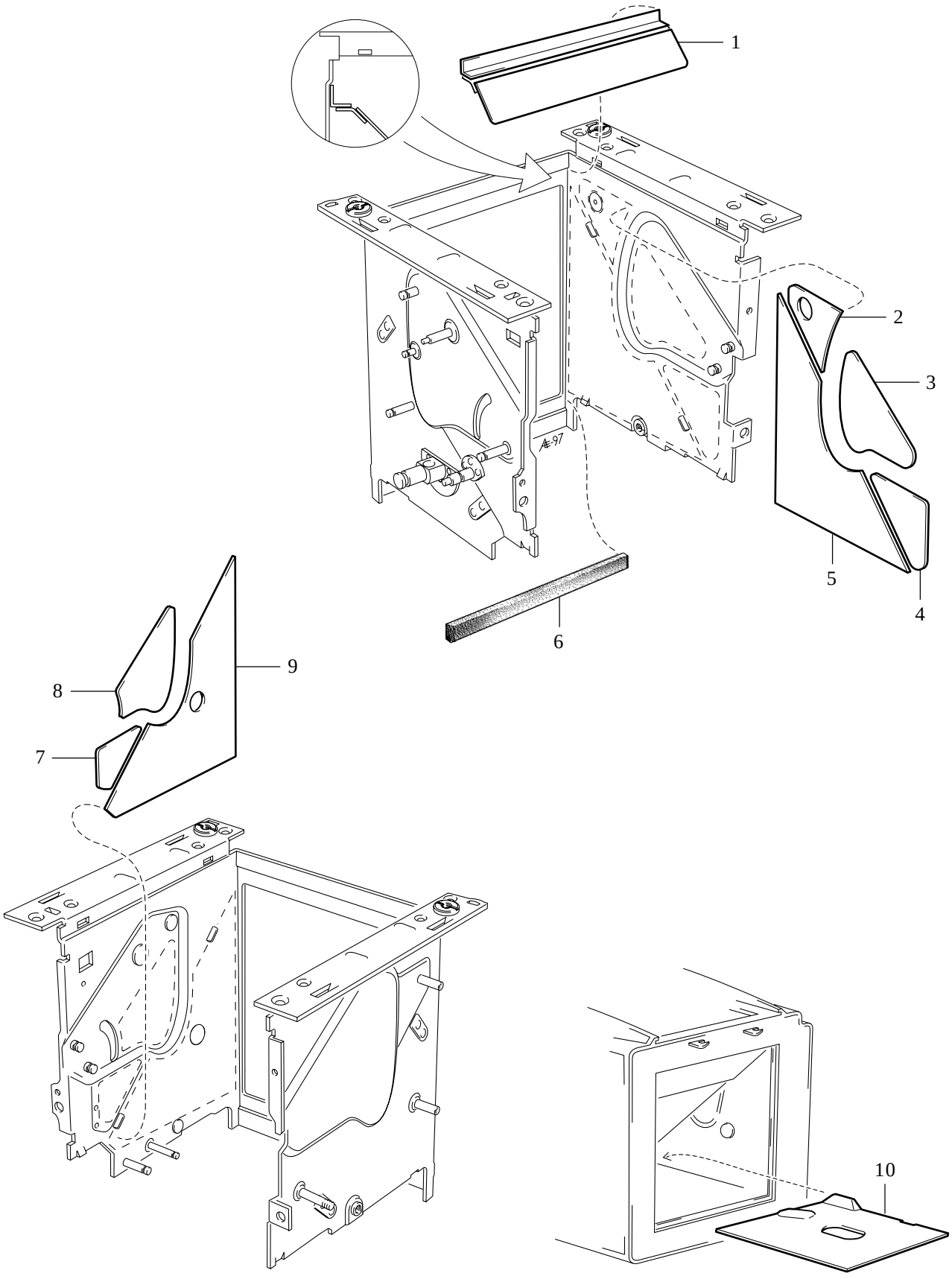
● = Loctite 225

■ = Loctite 243

Camera body 201F

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	107 399	Light seal	
2	1	103 404	Gear	
3	1	825 660	Screw	
4	1	107 416	Eccentric	
5	1	105 923	Drive shaft	
6	1	103 556	Bevel gear	
7	1	810 618	Washer	
8	1	821 407	Screw	
9	1	103 200	Arm	
10	1	103 199	Release lever	
11	1	816 754	Spring	
12	1	105 741	Release lever	
13	1	816 755	Spring	
14	2	817 112	Clip	
15	1	103 453	Light seal	
16	2	105 942	Light seal	
17	1	108 347	Light seal	
18	3	830 235	Screw	
19	1	108 101	Screen frame	
20	1	108 022	Chassis	
21	2	829 535	Screw	
22	1	103 583	Foil, left	
23	1	107 372	Brake	
24	1	12 453	Cable holder	
25	1	810 315	Washer	
26	1	107 365	Lever	
27	1	816 816	Spring	
28	1	103 545	Support	
29	1	103 576	Foil, right	
30	4	829 330	Screw	
31	4	103 578	Foil	
32	4	103 118	Screen support	
33	1	103 401	Flip-flop	
34	1	814 714	Spring	
35	1	103 407	Pivot	
36	1	105 887	Actuating lever	
37	1	816 760	Spring	
38	1	810 619	Spacer	
39	1	814 901	Spring	
40	1	105 707	Release lever	
41	1	105 756	Driving arm	
42	1	814 320	Spring	
43	1	817 115	Clip	
44	1	105 757	B-arm	
45	1	810 210	Washer	
46	1	105 109	Gear	
47	1	816 514	Spring	
48	2	817 119	Clip	
49	1	810 601	Washer	For adjustment 810 603, -07, -09
50	1	105 863	Gear	
51	1	816 613	Spring	
52	1	103 495	Rubber stop	

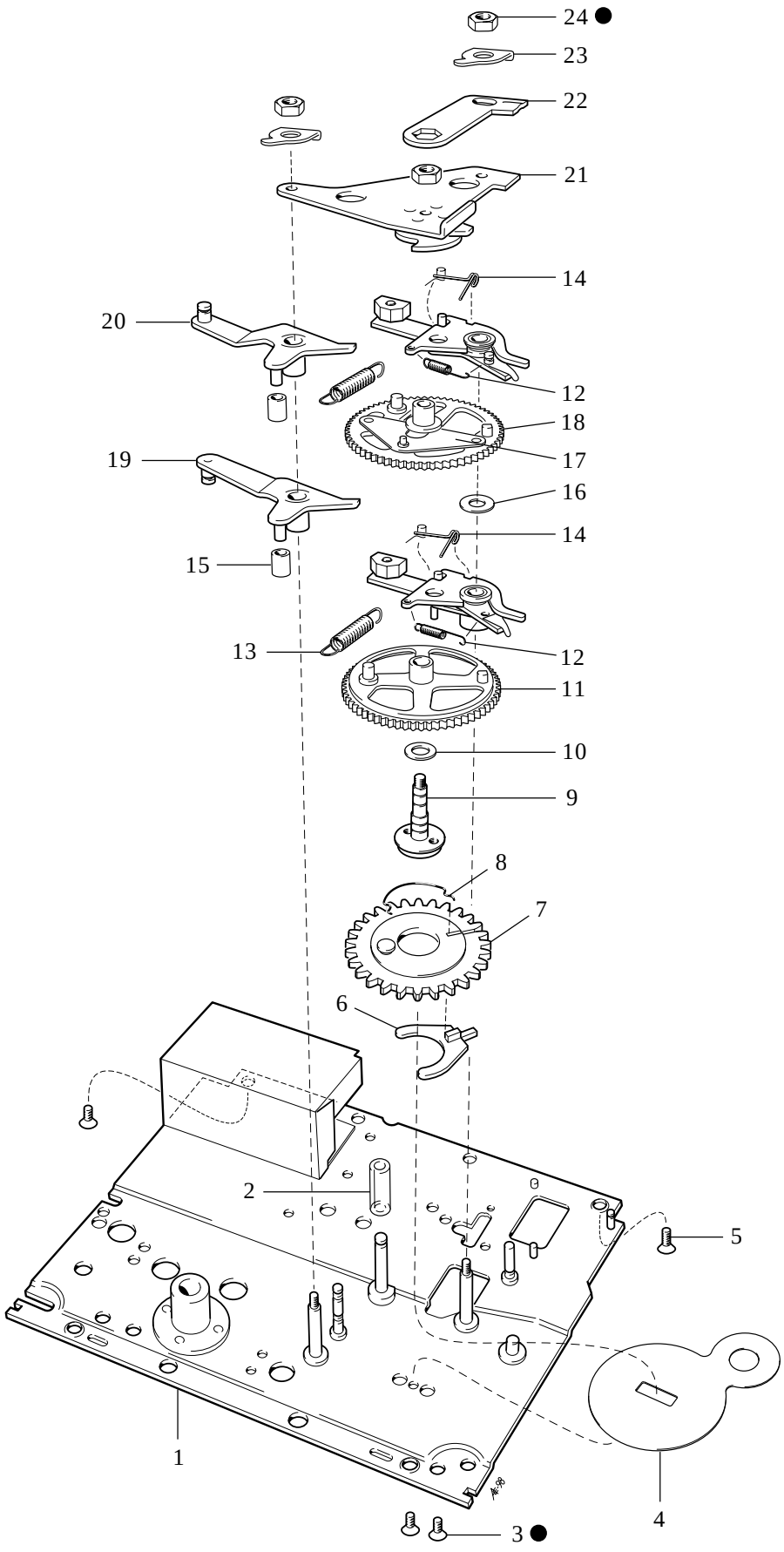
Camera body 202FA - 201F



Camera body 202FA - 201F

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	105 133	Light seal foil	
2	1	105 531	Reflection protector, left	
3	1	108 801	Reflection protector, left	
4	1	108 802	Reflection protector, left	
5	1	103 696	Reflection protector, left	
6	1	103 453	Light seal	
7	1	108 804	Reflection protector, right	
8	1	108 803	Reflection protector, right	
9	1	103 698	Reflection protector, right	
10	1	105 125	Inner cover	

Camera body 202FA

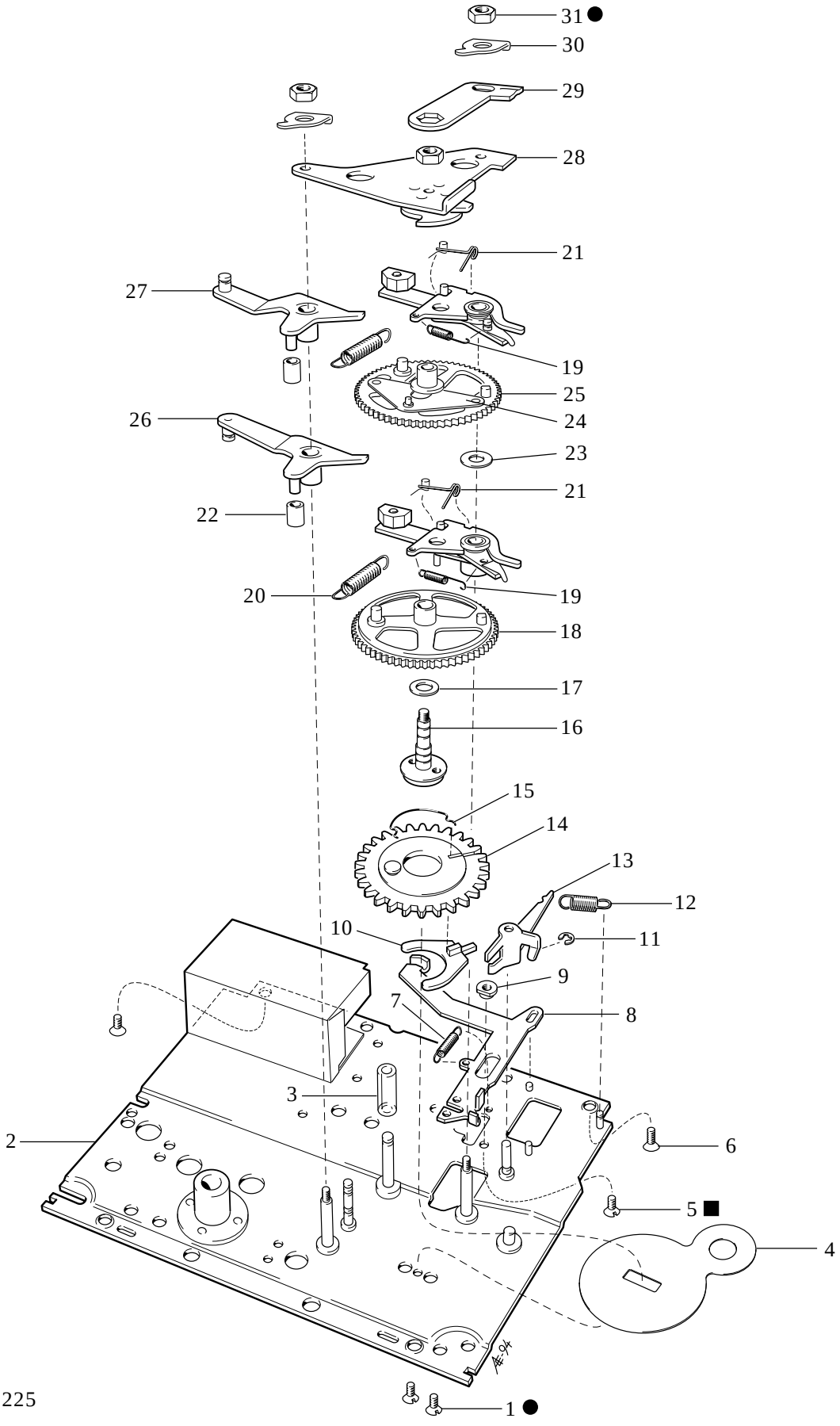


● = Loctite 225

Camera body 202FA

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	105 049	Mechanism plate	
2	1	810 557	Sleeve	
3	2	829 316	Screw	
4	1	103 687	Foil	
5	2	829 535	Screw	
6	1	103 445	Catch	
7	1	103 132	Cocking gear	
8	1	103 446	Spring	
9	1	103 850	Shaft	
10	1	810 618	Washer	
11	1	103 126	Shutter gear, 1st	
12	2	814 313	Spring	
13	2	814 710	Spring	
14	2	107 447	Spring	
15	2	810 317	Shrink sleeve	
16	1	810 525	Washer	Alternatively none
17	1	105 920	Guiding plate	
18	1	105 706	Shutter gear, 2nd	
19	1	105 702	Stop lever, 1st	
20	1	105 703	Stop lever, 2nd	
21	1	105 705	Bridge	
22	1	103 851	Support	
23	2	103 849	Locking plate	
24	3	828 402	Nut	
		111 028	Bottom mechanism plate	Complete

Camera body 201F



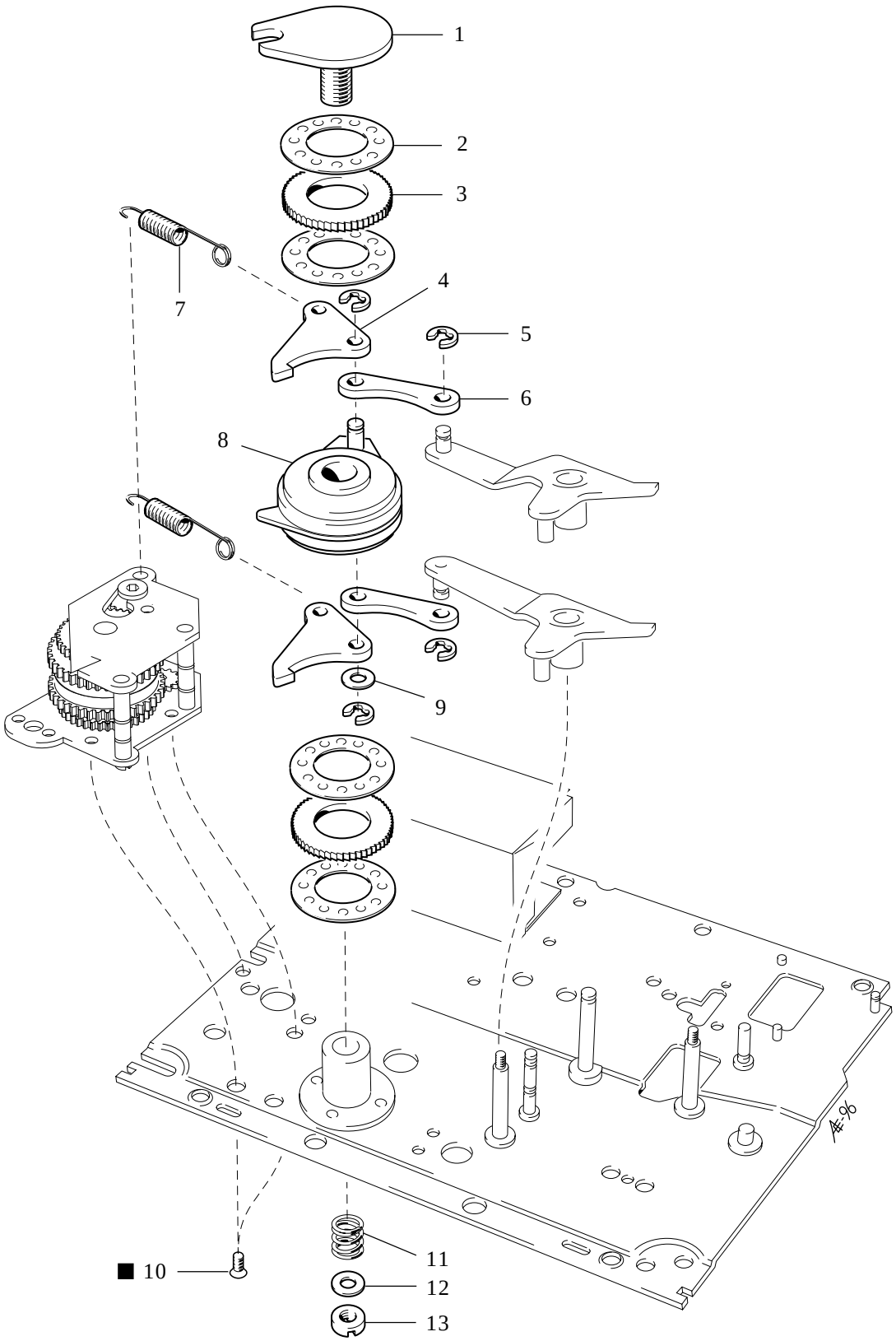
● = Loctite 225

■ = Loctite 243

Camera body 201F

Pos No.	Pcs	Spare Part No.	Description	Remark
1	2	823 320	Screw	
2	1	105 049	Mechanism plate	
3	1	810 557	Sleeve	
4	1	103 687	Foil	
5	1	823 425	Screw	
6	2	829 535	Screw	
7	1	814 312	Spring	
8	1	103 389	Release arm	
9	1	105 742	Bushing	
10	1	103 445	Catch	
11	1	817 112	Clip	
12	1	814 608	Spring	
13	1	103 390	Release arm	
14	1	103 132	Cocking gear	
15	1	103 446	Spring	
16	1	103 850	Shaft	
17	1	810 618	Washer	
18	1	103 126	Shutter gear, 1st	
19	2	814 313	Spring	
20	2	814 710	Spring	
21	2	107 447	Spring	
22	2	810 554	Shrink sleeve	
23	1	810 525	Washer	Alternatively none
24	1	105 920	Guiding plate	
25	1	105 706	Shutter gear, 2nd	
26	1	105 702	Stop lever, 1st	
27	1	105 703	Stop lever, 2nd	
28	1	105 705	Bridge	
29	1	103 851	Support	
30	2	103 849	Locking plate	
31	3	828 402	Nut	
		105 028	Bottom mechanism plate	Complete

Camera body 202FA - 201F

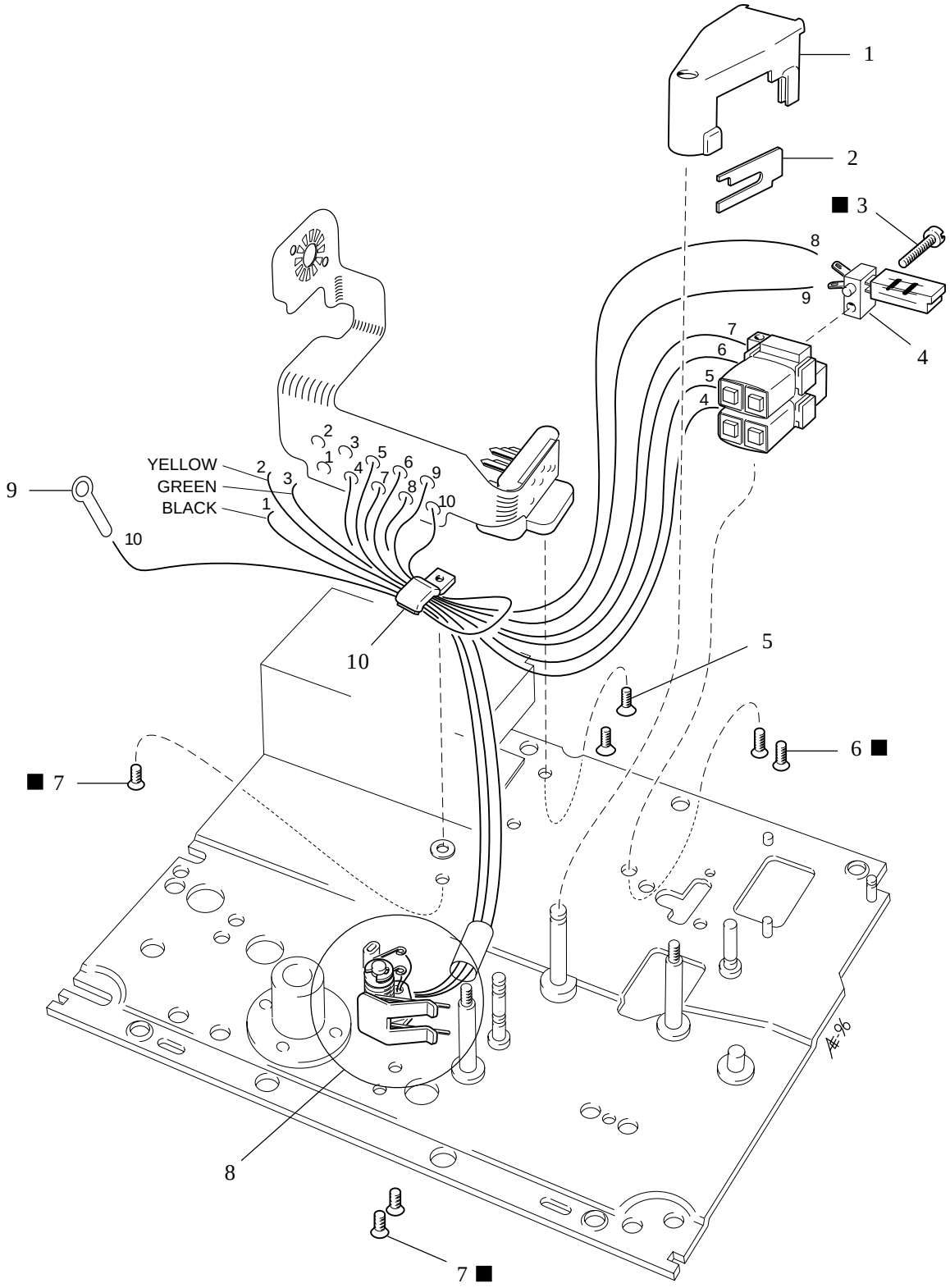


■ = Loctite 243

Camera body 202FA - 201F

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	107 354	Holder	
2	4	105 743	Brake disc	
3	2	105 686	Brake plate	
4	2	107 356	Catch	
5	4	817 112	Clip	
6	2	105 694	Link	
7	2	814 526	Spring	
8	1	105 952	Support	
9	1	810 315	Washer	Alternatively none
10	3	829 425	Screw	
11	1	815 908	Spring	
12	1	810 703	Washer	
13	1	105 690	Nut	

Camera body 202FA - 201F

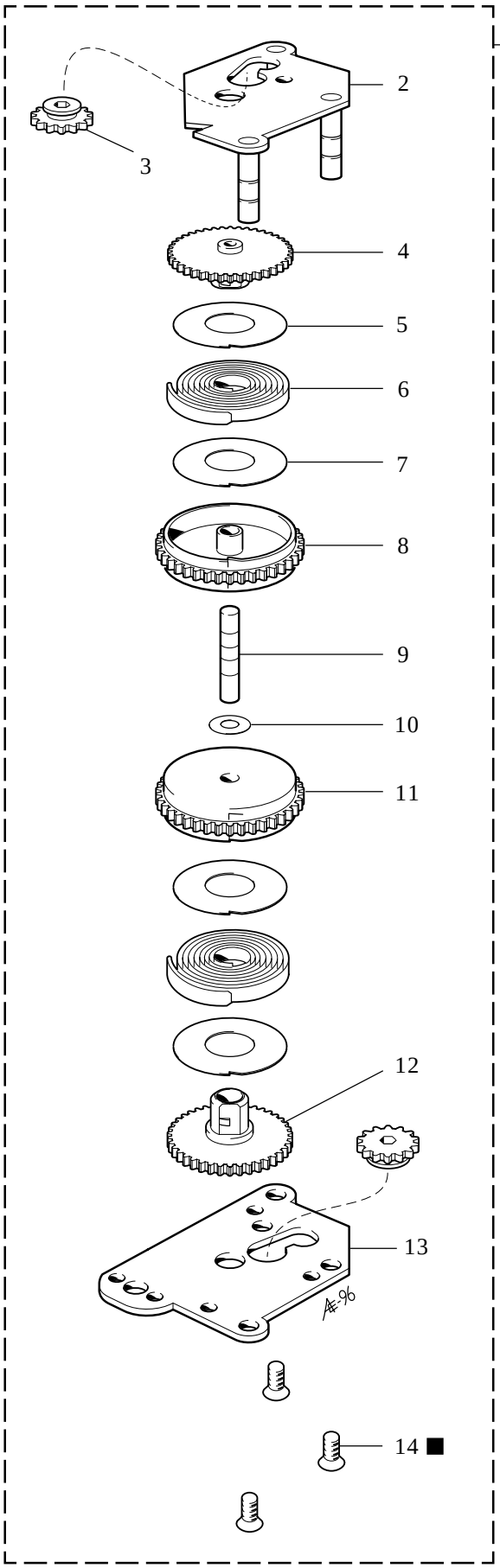


■ = Loctite 243

Camera body 202FA - 201F

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	105 307	Cover	
2	1	105 683	Cover	
3	1	830 260	Screw	
4	1	105 748	Late release switch	
5	2	829 335	Screw	
6	2	826 002	Screw	
7	2	829 425	Screw	
8	1	107 362	Sync switch assembly	
9	1	105 861	Soldering tag	
10	1	105 904	Cable holder	

Camera body 202FA - 201F



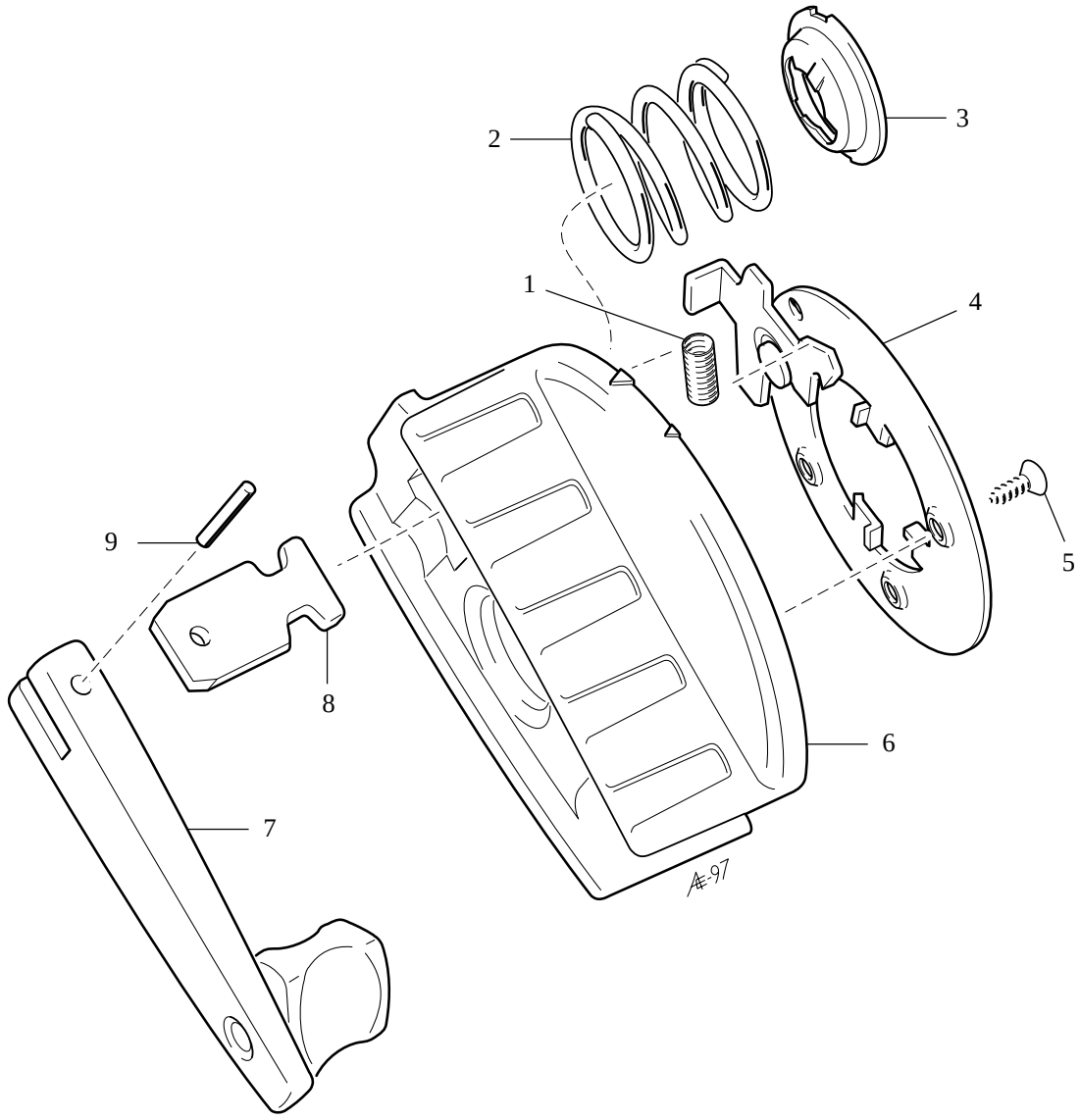
■ = Loctite 243

Camera body 202FA - 201F

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	107 345	Spring housing, complete	
2	1	105 676	Base plate	
3	2	103 585	Locking gear	
4	1	107 347	Spring centre, 1st	
5	2	810 839	Washer	
6	2	105 675	Spring	
7	2	105 711	Washer	
8	1	105 708	Drive gear, 1st	
9	1	105 673	Shaft	
10	1	810 550	Washer	
11	1	105 709	Drive gear, 2nd	
12	1	107 348	Spring centre, 2nd	
13	1	105 339	Cover plate	
14	3	829 425	Screw	

Camera body 202FA

(201F - from serial No. 16ET10334)

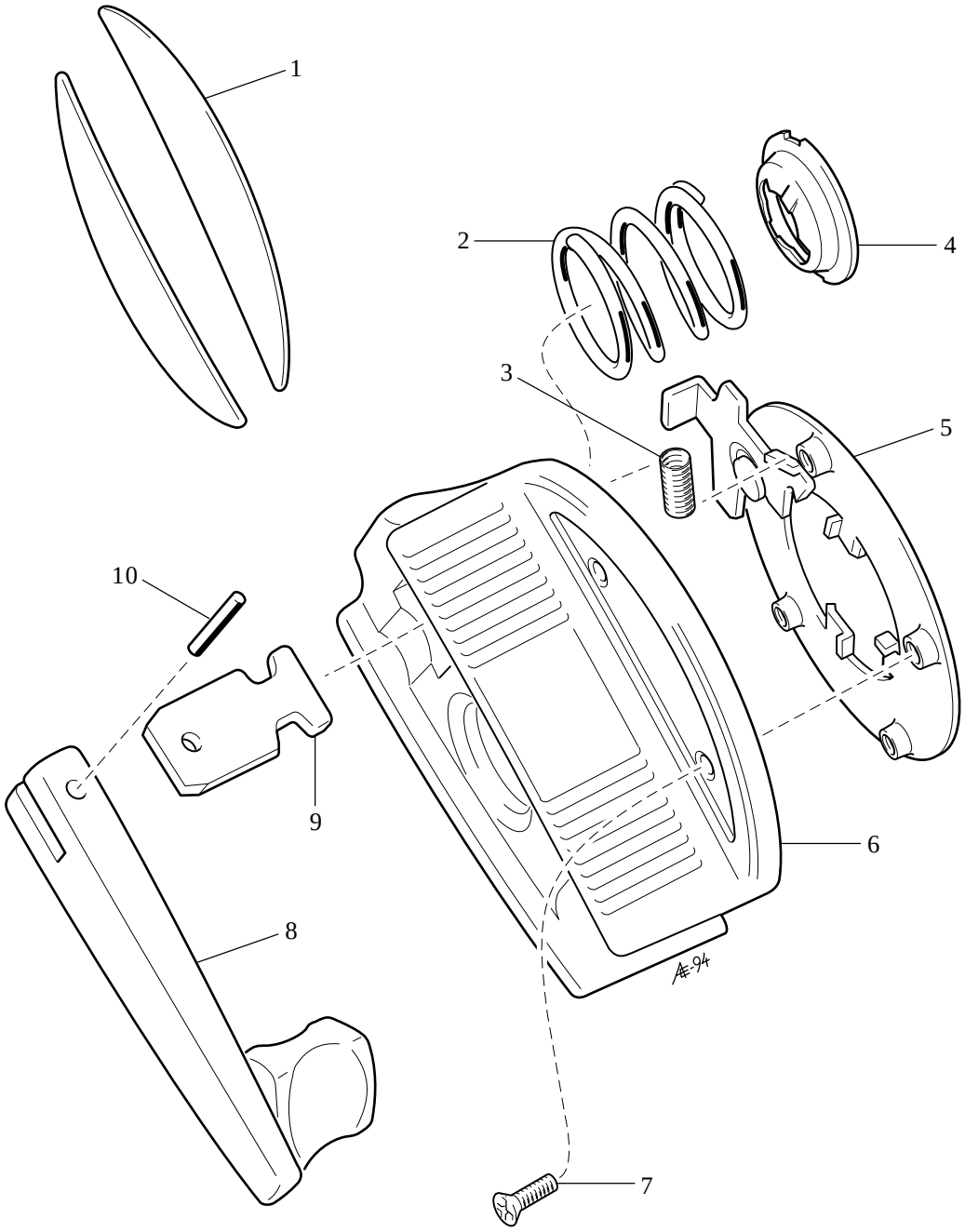


Camera body 202FA (201F - from serial No. 16ET10334)

Pos No.	Pcs	Spare Part No.	Description	Remark
1	1	815 707	Spring	
2	1	815 904	Spring	
3	1	103 516	Washer	
4	1	412 105	Crank bayonet	
5	3	826 401	Screw	
6	1	412 323	Crank support	
7	1	412 104	Crank arm	
8	1	103 514	Slide	
9	1	812 301	Pin	

Camera body 201F

(up to serial No. 16ET10333)

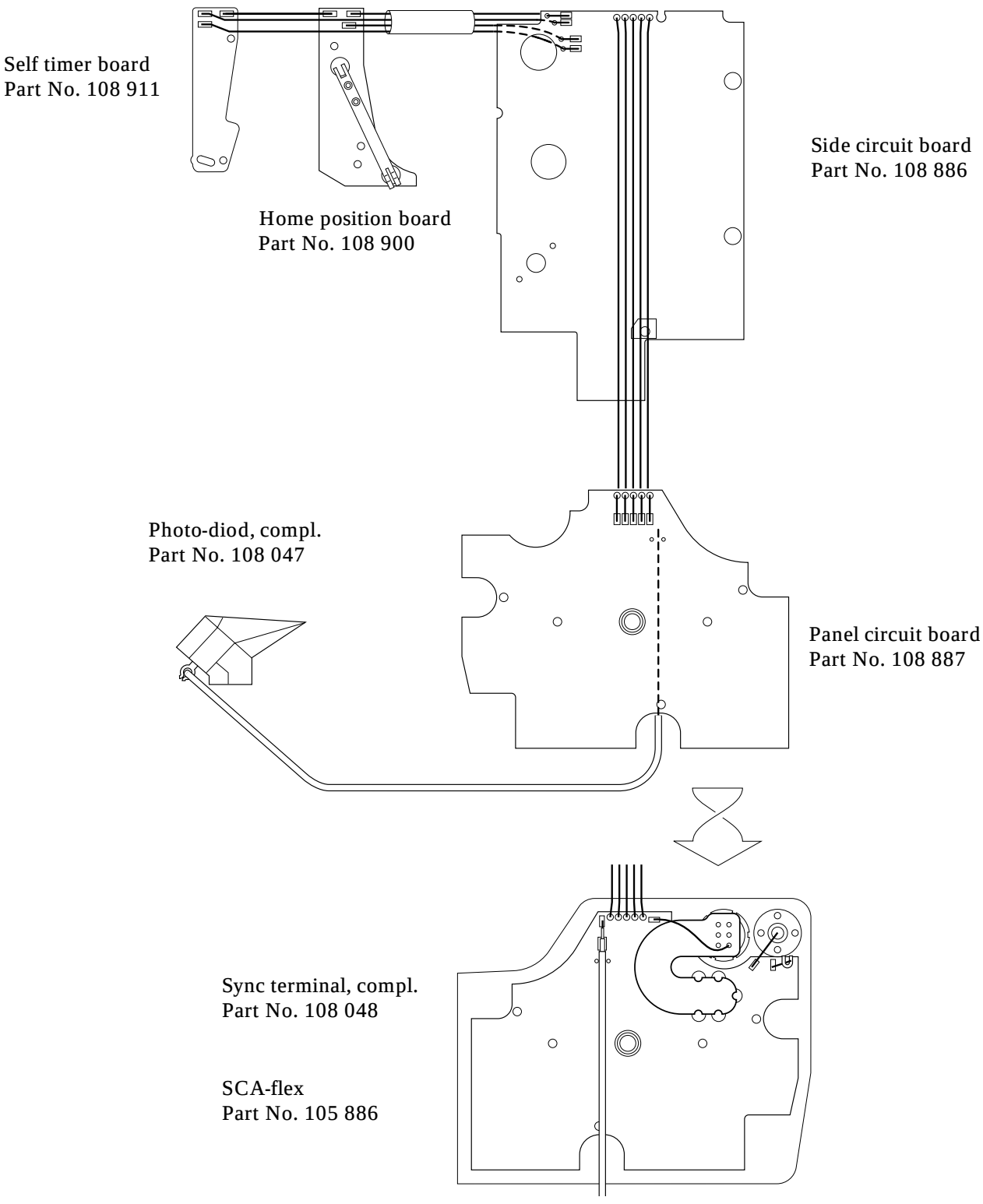


Camera body 201F (up to serial No. 16ET10333)

Pos No.	Pcs	Spare Part No.	Description	Remark
1	2	103 517	Leather	
2	1	815 904	Spring	
3	1	815 707	Spring	
4	1	103 516	Washer	
5	1	103 113	Crank bayonet	
6	1	107 409	Crank support	
7	4	829 540	Screw	
8	1	103 151	Crank arm	
9	1	103 514	Slide	
10	1	812 301	Pin	

Camera body 201F

Electronics complete - Part No. 108 024



Single conductor pre-tinned copper wire (diameter 0.5 mm) is used for connection between the PC-socket and the Panel circuit board.